

## **APPENDIX A**

# **Systems Acquisition Management and Support (SAMS) Complex**

# **Facility Requirements and Design Guide**

**Los Angeles AFB**

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## **References**

The design and construction shall comply with all federal, state, and local codes, standards, regulations, and ordinances, except where specifically stated herein, including, but not limited to, the latest edition of all applicable codes published by the following organizations:

ADAAG	Americans with Disabilities Act Accessibility Guidelines, as amended to date
AFCEE/LA	AFCEE Design Guide – Landscape Design
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASTM	American Society for Testing and Materials
BHMA	Builders Hardware Manufacturers Association
BOMA	Building Owners and Managers Association, International
CFR	Code of Federal Regulations
CITES	Convention on International Trade and Endangered Species
CPSC	Consumer Product Safety Commission
DOE	United States Department of Energy
EPA/CPG	United States Environmental Protection Agency, Comprehensive Procurement Guidelines
FM	Factory Mutual
ICBO	International Conference of Building Officials
NWWDA	Window and Door Manufacturers Association (formerly National Wood Window and Door Association)
NFPA 101	Life Safety Code, 2000

SCS	Scientific Certification Systems
SDI	Steel Door Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
T24	California Administrative Code, Title 24, as amended to date
TCA	Tile Council of America, Handbook for Ceramic Tile Installation
UBC	Uniform Building Code, 1997
UL	Underwriters Laboratory
USAF/ACG	USAF Architectural Compatibility Guide
USAF/ERFG	USAF Environmentally Responsible Facilities Guide
USAF/FPDG	USAF Force Protection Design Guide
USAF/IDG	USAF Interior Design Guide
USAF/LFDG	USAF Legal Facilities Design Guide
USGBC	United States Greenbuilding Council, LEED Program
WARP	Woodworkers Alliance for Rainforest Protection
WBDG	Whole Building Design Guide
WIC	Woodwork Institute of California, Manual of Millwork Standards (latest edition)
Air Force Architectural Compatibility Guide	

## **Purpose**

**(Note to Offerors: Appendix C includes several deletive items in order to reduce the cost to the government. The Offeror is encouraged to submit additional items or value engineering proposals, with costs and item scope defined in detail.**

The purpose of this document is to provide the Offeror a basis for understanding the project requirements. It also provides the framework for defining facility construction performance requirements and expectations of the Air Force. The Air Force's intent is to provide Offerors with requirements for the building(s) without putting undue limitations or constraints on the creativity of the to produce a building design. For this reason, the Air Force has provided these requirements in a narrative and sketch format instead of a more structured specification. The Air Force seeks an innovative design that uses proven materials and systems, which follows the Los Angeles Air Force Base (LAAFB) Design Guide, complies with the other descriptions and specifications contained in this document, and that taps the creativity available in the architectural design community.

## **Project Description and Physical Requirements**

The SAMS Complex project is the exchange of land for new facilities. The Air Force wishes to convey Area A (830,000 SF of facilities), the Lawndale Annex (30,000 SF facility) and the Sun Valley property (59,000 SF facility) and consolidate operations on Area B, but may accept alternate project concepts. Active missions on Area A and the Lawndale Annex will require replacement facilities equaling approximately 580,000 SF, consisting primarily of general-purpose office space. A 1,000 car parking garage will need to be constructed near these facilities. In addition, building 240 in Area B will need to be demolished to make room for the replacement facilities, and this will necessitate the construction of a pre-engineered metal building, which will be utilized as a warehouse. The Sun Valley property is vacant and requires no replacement facilities.

The Air Force is open to considering reasonable alternatives to the above scenario on the condition that they still meet our requirements. The Air Force wants to encourage market innovation in this request for proposals.

The facility space requirements table lists the gross square footage requirements for various categories of work and special purpose areas within the SAMS Complex. Common areas such as hallways, restrooms, and mechanical rooms etc. will be accommodated within these gross square footages.

## Facility Space Requirements

Space Type	Area (SF)	Remarks
Office Space/Conference/ Sensitive Compartmented Information Facilities SCIF	489,369	
Standard Office Space	(446,979)	
SCIF Space	(42,390)	Build IAW DCID 1-21
Conference Center	18,000	
Consolidated-Club	20,000	
Presentation room (RPC)	8,000	
Child Development Center	17,000	
Court Room	3,200	Per AF Design guide on court facilities
OSI	10,231	
Command Post (DO)	4,200	
ASOC	5,000	
<b>Total for Minimum project</b>	<b>580,000</b>	
Temporary Pre-engineered Metal Building	10,000	
Total minimum including temporary building	590,000	

The facility services guide table lists the amenities required in offices and general administrative work areas.

### Facility Service Guide

FACILITY	A	B	Finish Categories	Telephone Pre-wire	Secure Telephone Pre-wire	Fax Pre-wire	Printer Pre-wire	Data Pre-wire	Secure Data Pre-wire	Cable TV Pre-wire	Front Projection Pre-wire	Rear Projection Pre-wire	Video Camera Pre-wire	Sound System Pre-wire	3 Phase Power Pre-wire	Lockable Doors	Lockable Files	Demising Wall	Soundproofing	Restroom
General	●		E+	●	●		●	●	●	●	●	●	●	●		●	●	●	●	● <sup>1</sup>
SES	●		E+	●	●		●	●	●	●	●	●	●	●		●	●	●	●	● <sup>2</sup>
Colonel	●		E	●	●		●	●	●	●						●	●	●	●	
GS-15	●		E	●	●		●	●	●	●						●	●	●	●	
Field Grade	●		O	●	●			●	●							●	●			
GS-14 & GS-13	●		O	●	●			●	●							●	●			
Company Grade	●		W	●	●			●	●							●	●			
GS-12 & Lower	●		W	●	●			●	●							●	●			
Administrative Support	●		W	●	●	●	●	●	●	●										
GS-5 & Lower	●		W	●	●			●	●											
Receptionist	●		W	●	●	●	●	●	●											
Waiting Area	●		E	●				●												
Copy/Fax/Printer/Breakroom	●		S	●		●	●	●							●	●				
File Storage Room	●		S	●																
SCIF Area	●		O	●	●	●	●	●	●			●	●	●	●	●	●	●		
Teaming Room	●		W	●				●								●				
Meeting Room	●		W	●	●			●	●	●						●		●	●	
<b>Conference Rooms</b>																				
CL1	●		E	●	●			●	●	●	●	●	●	●		●		●	●	
CL2	●		E	●	●			●	●	●	●	●	●	●		●		●	●	
CL3	●		E	●	●			●	●	●	●	●	●	●		●		●	●	
CL4	●		O+	●	●			●	●	●	●		●	●		●		●	●	
CL5	●		O+	●	●			●	●	●	●		●	●		●		●	●	
CL6 - Panel System	●		W	●	●			●	●	●	●		●	●		●		●	●	
CL7 - Post System	●		W	●	●			●	●	●	●		●	●		●		●	●	
<b>Workstation</b>																				
SL1	●		W	●	●			●	●								●			
SL2	●		W	●	●			●	●								●			
SL3	●		W	●	●			●	●								●			
<b>Executive Office</b>																				

<sup>1</sup> Command Section only

<sup>2</sup> Command section only

FACILITY	A	B	Finish Categories	Telephone Pre-wire	Secure Telephone Pre-wire	Fax Pre-wire	Printer Pre-wire	Data Pre-wire	Secure Data Pre-wire	Cable TV Pre-wire	Front Projection Pre-wire	Rear Projection Pre-wire	Video Camera Pre-wire	Sound System Pre-wire	3 Phase Power Pre-wire	Lockable Doors	Lockable Files	Demising Wall	Soundproofing	Restroom
L1	●		E+	●	●		●	●	●	●						●	●	●	●	
L2	●		E	●	●		●	●	●	●						●	●	●	●	
L3	●		E	●	●		●	●	●	●						●	●	●	●	
Office																				
L4	●		O+	●	●			●	●							●	●			
L5	●		O	●	●			●	●							●	●			

The estimated office and workstation requirements are listed in the following table. The information is provide to assist in estimating systems furniture requirements as well as quantities of hard wall that need to be constructed in the SAMS Complex.

#### Estimated Office and Workstation Requirements

Levels	Estimated # of Offices/Conf. Rooms	Plus or Minus # of Offices/Conf Rooms	Net SF Each
<b>Hard Wall Offices</b>			
OL - 1	1		635
OL - 2	5	1	535
OL - 3	16	2	320
OL - 4	47	7	240
OL - 5	10	2	120
<b>Systems Furniture Offices</b>			
SL - 1	212	31	120
SL - 2	380	57	100
SL - 3	1488	223	84
SL - 4	263	39	84
Total	2343		
<b>Conference</b>			



<b>Levels</b>	<b>Estimated # of Offices/Conf. Rooms</b>	<b>Plus or Minus # of Offices/Conf Rooms</b>	<b>Net SF Each</b>
<b>Rooms</b>			
Hard Wall			
CL - 1	8	1	1200
CL - 2	13	2	950
CL - 3	32	5	850
CL - 4	33	5	500
CL - 5	32	5	200
Systems Furn			
SCL - 6	74	11	150
SCL - 7	220	33	100
OL-Office Level SL-Systems Workstation Level CL - Conference Room Level SCL-Systems Furniture Conference Room Level			

## **LAAFB Design Guide**

### **I. Introduction**

#### **Purpose**

The Design Guide for Los Angeles Air Force Base is intended to serve as a reference and guide for Offerors working to provide new facilities for LAAFB, Area 'B'.

#### **Background**

LAAFB is presently comprised of multiple, non-contiguous parcels of land. The life-cycle cost of retrofitting the existing buildings located on the site known as Area 'A' (located south of El Segundo Blvd., east of Aviation Blvd., north of Redondo Beach Blvd. and west of the San Diego Freeway) for seismic safety has been determined to be greater than the life cycle costs of constructing new facilities. Operations currently housed in Area 'A' will be relocated and consolidated into Area 'B' in new buildings. Area 'B' currently houses Air Force facilities including the Commissary, Medical and Dental Clinic, Fitness Center, Child Care Center, and various other personnel, office and administration related activities. Area 'B'; is located east of Douglas St., North of El Segundo Blvd., and west of Aviation Blvd. in El Segundo, CA.

#### **Scope**

The Design Guide addresses the issues of siting, vehicular, pedestrian and service movement, urban spaces, building scale, massing, fenestration, materials and colors for new construction on the base.

#### **Goals**

The Design Guide provides specific guidance for urban organization on base and for architectural development. This guidance is meant to provide a framework within which the Offeror uses his own creativity to meet the LAAFB aesthetic theme image. It is also the goal of LAAFB for the SAMS project to be developed into a "Class A" office environment, compatible with the highest level of private office development in the surrounding El Segundo area.

### **II. LAAFB Urban and Building Aesthetic Theme**

LAAFB is part of the United States Air Force, the most formidable aerospace power in the world. LAAFB's primary mission revolves around its aerospace role and requires significant interaction with the corporate aerospace industry which is located physically adjacent to the urban LAAFB site. LAAFB is also located in close proximity to the Los Angeles Airport, an international hub of flight. Finally, the Base is within a region renowned for its innovation in technology. All these factors lead to the logical conclu-

sion and desire that the architectural and urban design image of LAAFB should reflect this forward thinking technology. This image should be consistently reflected throughout the urban site organization and building form, mass, material and color.

The overall image and translation into real projects shall also recognize that people occupy these buildings and urban spaces. These professionals require highly efficient and operational spaces for working, as well as restful, "urban sheltered" spaces for pedestrian access, casual discussions, and break times.

The architecture of LAAFB shall reflect not only the technological emphasis discussed above, but shall also be multi-use and functionally adaptable. The architecture shall be compatible with the newer existing facilities on the Base, i.e., Commissary, Medical/Dental Clinic, Fitness Center, yet the designs shall be appropriate to each new project's individual scale and function. The service requirements for the new facilities, technological as well as traditional service activities, shall be concealed to the greatest extent possible.

Due to the confines of the Area 'B' site, development will need to be compact and clustered. This is an opportunity to create an urban neighborhood, one that is walkable, secure, active, scaled to the individual, and with a unified and exceptional character that unites the people of LAAFB in their common mission.

The temperate climate of coastal Southern California allows significant opportunity for outside spaces to be developed as non-programmed, yet functional areas of varying size, formality and type. Exterior spaces shall be designed to be pedestrian oriented without conflict between pedestrian routes and vehicular circulation. Once personnel arrive at LAAFB, they should not have any reason to need use their vehicle again until they are ready to leave LAAFB. Clearly defined, pleasant and inviting pathways and comfortable seating areas shall be integrated throughout the areas of development. Landscape shall be abundant. Shade shall be provided at seating areas and throughout pedestrian areas. Consideration shall be given to the ability of the landscape to provide shade in the near future, without having to wait years for the trees and plants to mature. Maintainability of the landscape will be critical to the ongoing success of the design.

### **III. Existing Influences and Conditions**

#### **Mission of Los Angeles Air Force Base**

Los Angeles Air Force Base supports the Space and Missile Systems Center (SMC). The goals of the SMC are:

- Make space mission execution, ground support, and launch affordable, reliable, and routine for the warfighter.
- Increase cooperation among the civil, commercial, intelligence, and military space sectors.

- Satisfy customers' needs in war and peace.
- Sustain technological superiority,
- Enhance the excellence of business practices.
- Enable people to excel.
- Operate quality installations.

LAAFB planning and facilities improvement strategy is based on fundamental Air Force goals. The following four goals form the basis for directing base development and facilities improvements in a logical and orderly fashion:

- Perform the Mission – Provide facilities that enable the System Program Offices (SPO) to accommodate program changes.
- Protect our Resources – Ensure protection, use and management of human, financial, natural, cultural, historical and man-made resources.
- Architectural Compatibility – Ensure architectural compatibility on base by using efficient and consistent style in all new structures. Also, enhance land use compatibility on base.
- Quality of Life – Promote the public health, safety, welfare and overall quality of life.
- De-institutionalize the face of LAAFB. Provide open spaces and landscaping. Improve roadways and traffic circulation.

### Surrounding Community and Architecturally Significant Buildings

LAAFB is situated in an urban-industrial environment about one mile south of the Los Angeles International Airport in the South Bay area of Los Angeles County, California. This location provides immediate access to international, national and regional air transport, land and water transportation facilities and circulation routes.



Los Angeles Air Force Base, Area 'B'; is located on the northeast corner of El Segundo Blvd. and Douglas Street. It is located within a community predominately comprised of commercial office buildings, many of which are located in campus-like environments. Much of the surrounding community is oriented to the aerospace industry with LAAFB having close working relationships with these commercial enterprises. The existing surrounding buildings are primarily Class 'B' office buildings, but newer development is more commonly being constructed as Class 'A', as land values continue to rise.





Many of these office buildings in proximity to LAAFB include some features which fit LAAFB's urban and building aesthetic theme, thereby, reinforcing the use of those features to give LAAFB community and neighborhood compatibility. These recommended features include:

- Buildings grouped or formed to create a campus-style setting.
- Simple, clean lines creating clarity of form but with an articulation of the building mass from the ground up, to provide uniqueness and reduce the visual volume of mid-rise buildings.
- Architectural features for bringing daylight into buildings.
- A proportioned use of solid materials, along with glass, to create architectural interest in facades and avoid an all-glass look which is incompatible to Area B's current and projected development.
- Quality materials, in content and image, which help express the professional nature of the activities in the buildings.
- Identifiable entries to the buildings with ample landscaping.
- Courtyards and glazed atriums providing protected "people places" for breaks, lunch, and casual conversation taking advantage of the climate in this coastal Southern California region.

The following are examples of class-A office buildings in the local area.



Typical office buildings in the South Bay area

### Aesthetic Theme of Existing Buildings

The Commissary (built in 1980's), the Medical-Dental Clinic (under construction) and the proposed Physical Fitness Center express the "hi-tech/aerospace" image LAAFB is seeking to build upon. They have been designed as a series of buildings, each building on the last, to strengthen that desired image. The specific elements that create this image are:

- The very simple, clean lines of the Commissary, capped by a rounded parapet cap and the streamlined look of its exterior metal skin panels, accented by a major curved shape to highlight the building's entry.
- The continued simple lines of the Dental Clinic clad in metal skin panels with rounded parapet cap. This streamlined look is accented using horizontal metal sunshade devices with articulated detailing created by their hi-tech suspension attachment system. Finally, the use of an aerodynamically curved-shape roof crowns the building and cascades over the entry atrium, making day lighting an integral part of the design.
- Similar use of the same vocabulary of shapes and materials on the Fitness Center with the introduction of a major new material (burnish-faced concrete masonry units) to create a richness in the full complement of new buildings and avoid monotony in the overall image. In all three buildings, individually and as a group, there is a consistency in their simple, clean lines accented by curved shapes, clarity of form and building entry and use of materials which convey a hi-tech, forward thinking image.



The following are examples of existing and proposed facilities in Area B



**Commissary and rendering of new Medical/Dental Clinic**



**Rendering of proposed Physical Fitness Center**

## **IV Architectural Guidelines**

### **Theme**

LAAFB's predominant aerospace role, requiring a highly professional and technological thinking workforce, requires buildings, which functionally accommodate and visually convey a dynamic image of this mission.

### **Composition**

- Simple and clean but dynamic lines for building masses.
- Curved forms introduced to carry on the hi-tech, aerospace image and create uniqueness.
- Proportioned use of solid materials and glass for architectural richness and façade articulation.
- Architectural features to capture daylighting and a detail sensitivity to controlling it.
- Building masses, from the ground up, which reduce the visual volume of mid-rise buildings.
- As more buildings develop, a campus-style approach to their combined configuration and the spaces created among them.

### **Building Materials**

The approved and recommended architectural materials for LAAFB are:

- Metal skin panels similar to those on the Commissary, Medical-Dental Clinic and Fitness Center
- Stone Veneer
- Architectural pre-cast concrete panels
- Enhanced-finish concrete masonry units (Exposed aggregate or burnished finish)
- Exterior cement plaster
- Glass with clear anodized aluminum framing or a butt glass "frameless" system. Glazing shall be non-reflective
- Standing seam metal roofs for slopped and curved surfaces. Metal shall be factory-finish color with standing seams at maximum 18" o.c.

### **Colors**

The approved and recommended exterior colors for LAAFB are:

- Colors such as off white and light gray shades shall be the predominate scheme for exteriors wall surfaces.
- Glazing shall be clear or have minimal tint.

- Storefront systems shall be clear anodized, or similar to Kawneer Co. "Platinum Ice".
- Use of accent features at locations such as primary entrances is encouraged. "Air Force Blue" color may be incorporated in limited quantity.
- Standing seam barrel roofs shall be similar in color to Berridge Manufacturing Co., "Zinc Grey".
- Exterior site hardscape shall have integral color adequate to minimize glare and reflectivity.
- All colors shall be factory applied or integral to the material.
- Exterior cladding material shall be light in color.

## **V. Urban Design Analysis and Guidelines**

### **Existing Site Plan Analysis**

The existing site plan for LAAFB Area 'B' has evolved over a period of more than 40 years, and is not orderly. Visitor areas are not clearly defined, nor are pedestrian routes. Existing building design is inconsistent, and most facilities are past their useful life and inappropriate for the current functions and operations of the Base.

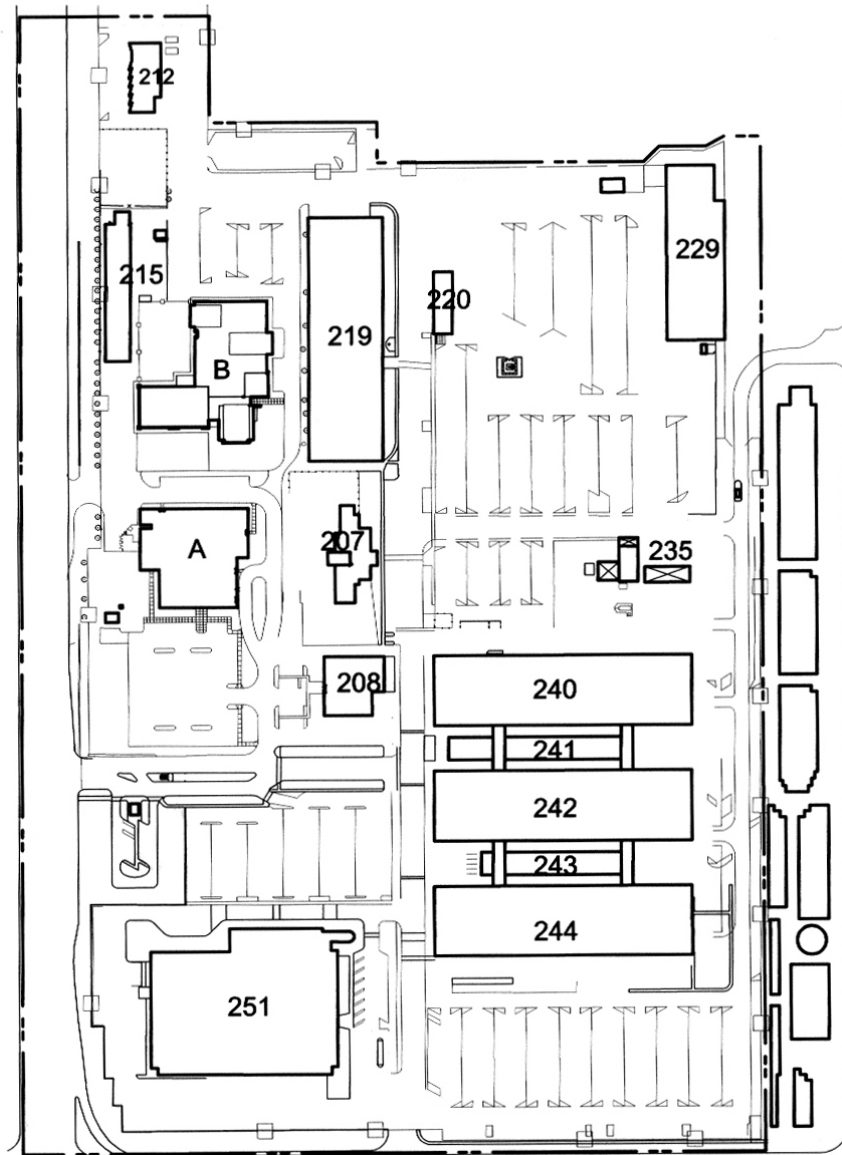
As this Design Guide is being developed, construction is underway for a new Medical/Dental Clinic and a new Fitness Center. The Existing Site Plan diagram indicates the footprint of these two buildings (and required demolition) as if they were complete. When completed, these new buildings will begin to define a more orderly site plan for the northeast area of the base.

An entry courtyard with seating and landscaping will be located at the southeast corner of the Physical Fitness Center. That courtyard will ultimately be located diagonally opposite of the larger, formal plaza indicated on the Site Plan. The present visitor entrance to the Base is off of Douglas Street, south of the Medical/Dental Clinic. That entrance will remain in place until a new entrance and Visitor's Center is constructed between the Fitness Center, and north of the of the Medical/Dental Clinic. As a date for design and construction of the new entrance has not been determined, the site design should accommodate either the existing, or the proposed location.

Service and personnel access for the Commissary, Medical/Dental Clinic, Physical Fitness, and all other Base operations shall be maintained during the construction of the SAMS project.

Phased demolition of various facilities will be required to accommodate the planned new construction. Activities and operations that are presently housed at Area 'B' are required to remain in operation during construction. Functions and personnel housed in Area 'A' can relocate after construction at Area 'B' is complete.

## EXISTING SITE PLAN



- A. PROPOSED MEDICAL DENTAL CLINIC
- B. PROPOSED PHYSICAL FITNESS CENTER

## Organizing Elements

Elements that will provide organization to the evolving site plan for LAAFB include:

- Base Edges

The primary impression of the LAAFB for the general public is the appearance of the edges of Area 'B' along the major boulevards that comprise its perimeter. These edges are presently poorly defined, and do not serve as an amenity to the surrounding community. New site planning should provide higher visibility and better identity for the LAAFB.

- Circulation

- Vehicular

- Visitor and Base personnel entrances
  - Minimal intrusion into the Base by vehicles
  - Clearly defined routes and hierarchical access

- Pedestrian

- Walkable site, predominately pedestrian
  - Direct access from parking structure to building entrances

- Service

- Minimal intrusion into the site
  - Centralized loading dock

- Parking

- Centralized Base personnel parking structure
  - Clearly identifiable visitor parking

- Security

- Force protection as required by LAAFB

- SAMS Buildings

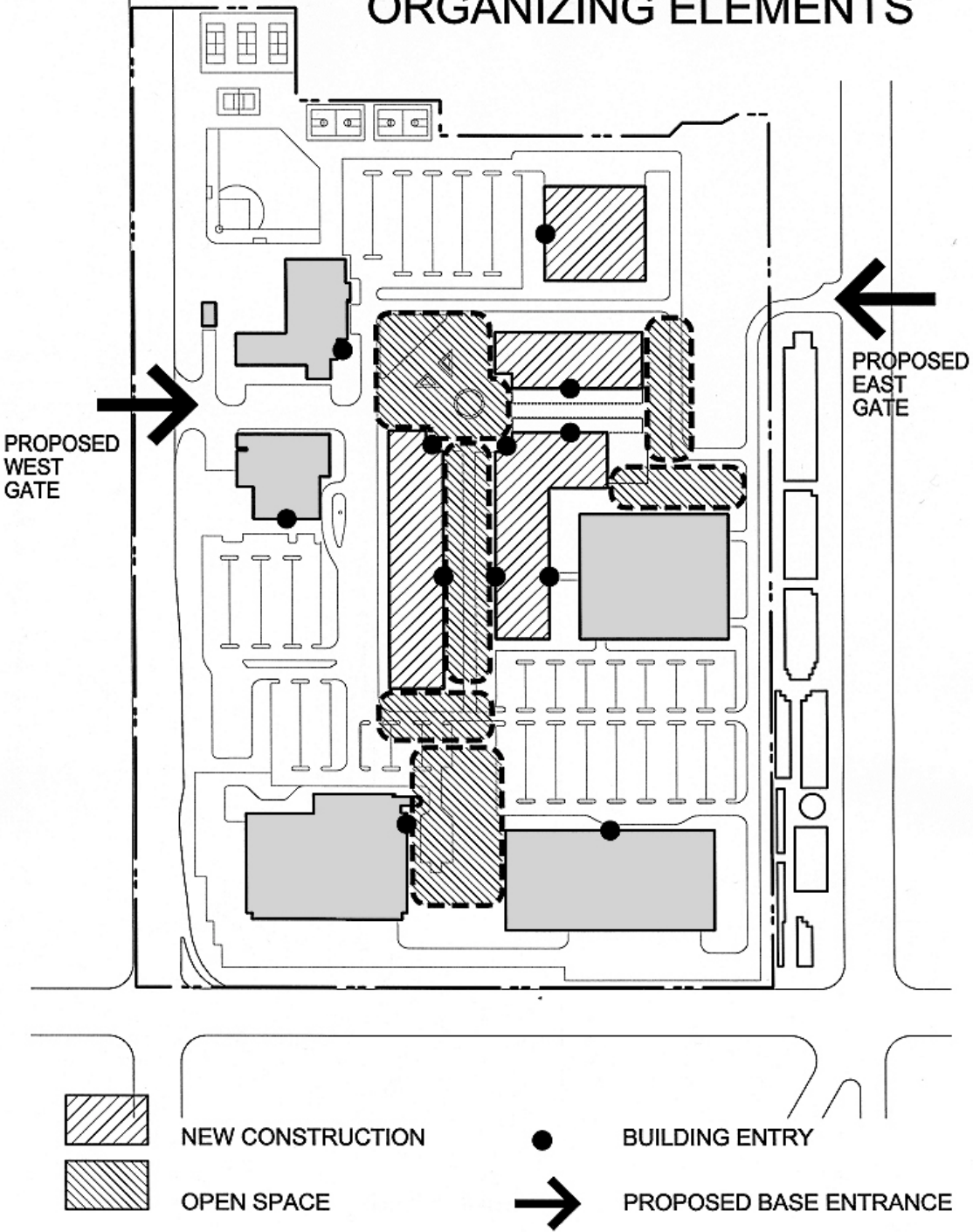
- Open spaces

- Central formal plaza
  - Pedestrian mall central to site and buildings
  - Pleasant, functional outdoor seating areas

- Building Entrances

- Located at pedestrian access points
  - Oriented to recognize parking structure as well as visitor parking

# ORGANIZING ELEMENTS



## **Allowable Building Sites**

Utilizing the LAAFB General Plan, the Design Guide has identified specific allowable building sites for development of the S.A.M.S. Office Buildings, parking structure and open spaces.

Site density, building massing, pedestrian orientation, parking and arrival, open space areas have all been considered in identifying options for site coverage and configuration. As the building architect develops the actual building configuration and resulting footprint and mass, it is anticipated that the concept of the siting, massing, arrival, pedestrian areas, and setbacks will primarily follow the Design Guide.

The allowable building sites are defined by the following criteria:

### **S.A.M.S. Minimum Project Scope**

This is defined by the area just south of the east gate, continuing west to the eastern edge of the drive on the east side of the Physical Fitness Center. The boundary continues south to align with the “mall” to the north of the S.A.M.S. project. The southern boundary continues east and terminates at the eastern property line of the site.

The building contained within the minimum project scope include the S.A.M.S. complex including a portion of the central plaza and secondary mall spaces, the parking structure and associated spaces between the parking structure and the S.A.M.S. complex.

### **S.A.M.S. Additive (ABG Phase I)**

This area is defined by the east entry gate continuing west to the eastern boundary of the north parking lot, continuing north to the northern property line, continuing west to the eastern edge of the proposed softball/baseball field. The boundary continues south along the eastern edge of the Physical Fitness Center, to the northern edge of the S.A.M.S. complex, continuing east to the eastern property line.

The buildings contained in the ABG Phase I would include the ABG Phase I building, the completion of the central plaza and the drive to the north of ABG Phase I building.

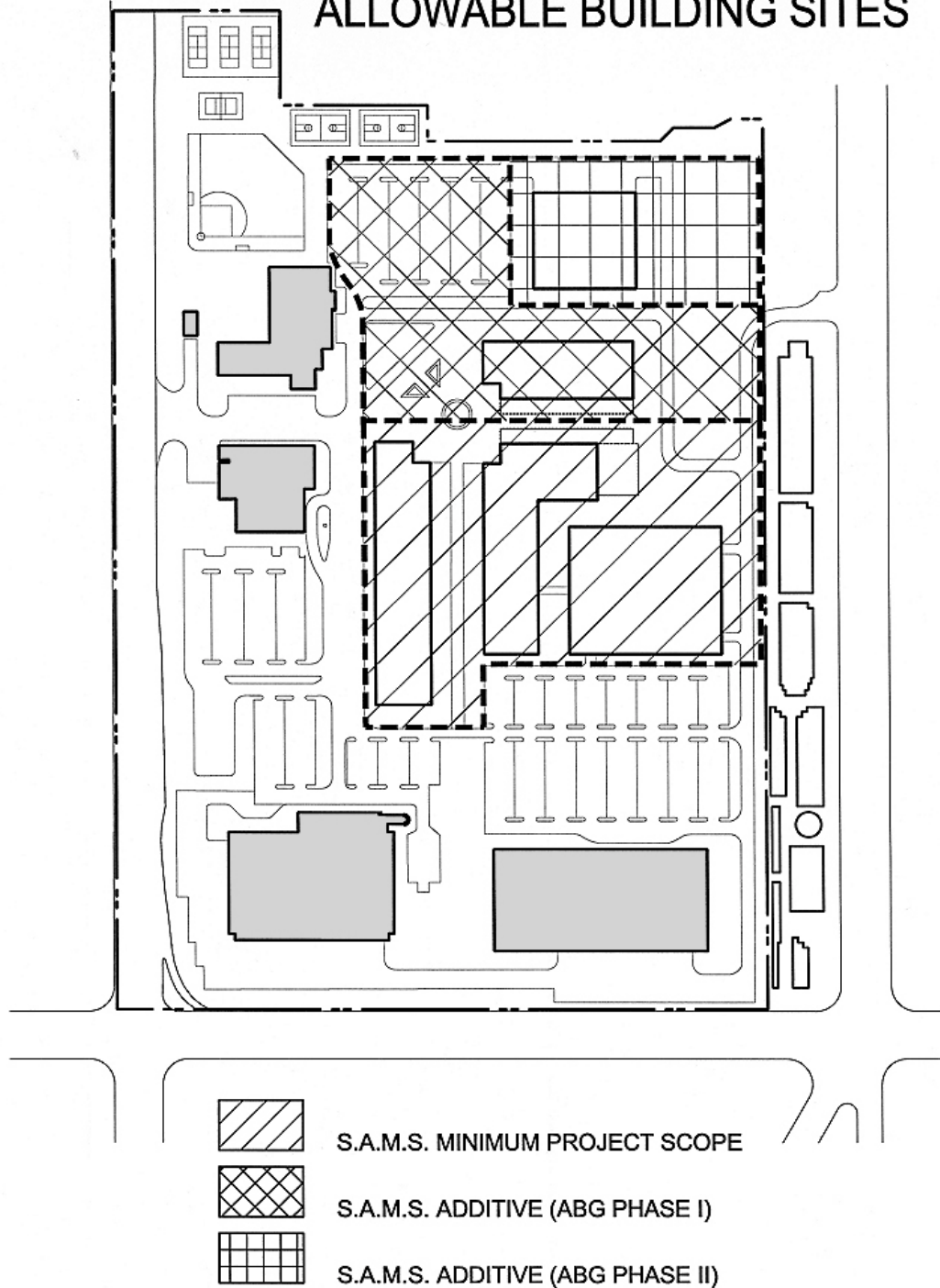
### **S.A.M.S. Additive (ABG Phase II)**

This area is defined by the east entry gate heading north to the north property line, continuing west to the eastern edge of ABG Phase I, continuing south to the drive and terminating at the east gate.

The building contained in the ABG Phase I would be ABG Phase I building, and the area between that building and the eastern property line.



## ALLOWABLE BUILDING SITES



## **External Vehicular Circulation**

LAAFB, Area 'B' is served by the 405 freeway to the east. Access is primarily from El Segundo Blvd., with the main base visitor entrance from Douglas Street. A proposed Visitor Processing Center will be constructed with a new Main Base Entrance further north on Douglas Street at a future date. Vendors and deliveries will also utilize this entrance. Until the proposed entrance is completed, the existing entrance location will also need to be accommodated in circulation planning.

Primary access and egress for Base personnel will be from Aviation Blvd. on the east. Since Base operations scheduling results in peak arrival and departure times, all off-site and on-site roads, drives and entrances should be designed to accommodate anticipated maximum traffic counts.

Force Protection shall be discussed with LAAFB and incorporated into all circulation planning.

## Internal Vehicular Circulation

Control of visitor vehicular access for security and traffic purposes should be considered as the vehicular access and parking is designed. Visitor vehicular wayfinding from the location of the interim Douglas Street entrance (as well as the proposed entrance further north on Douglas Street) to designated visitor parking should be clearly defined by roadway improvements, landscaping and signage. Visitor vehicular wayfinding should be clearly defined from the location of the interim entrance to visitor parking, and readily adaptable to a new circulation route when the proposed entrance location is completed.

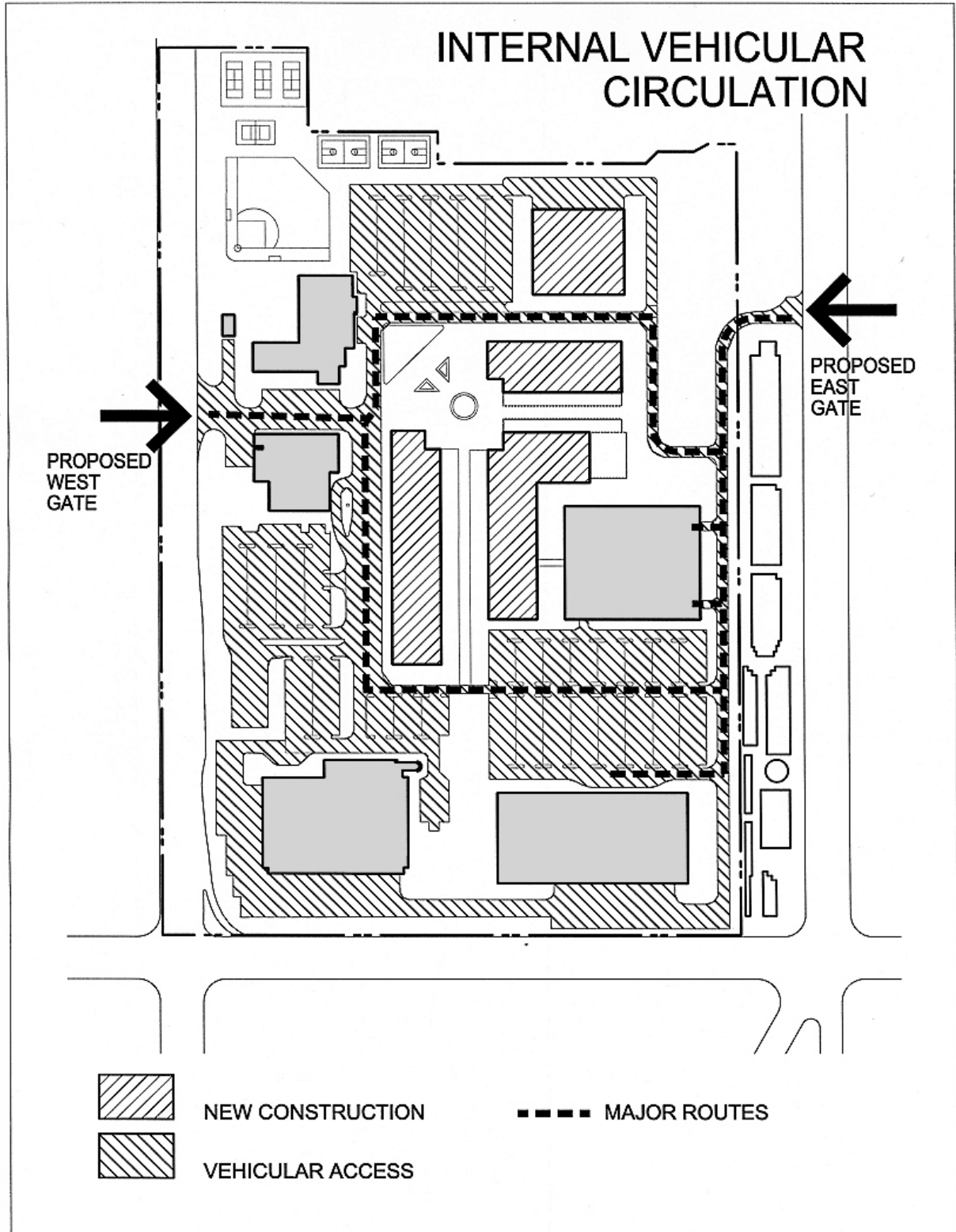
Primary access and egress for staff will be from Aviation Blvd. on the east leading directly to the parking structure and to surface parking to the south. Peak load access and egress should be anticipated in the design of the entrances and the parking structure and surface lot, as many staff will be commuting on a similar daily schedule. Security control access will need to be provided at this entrance.

Minimizing on-site vehicular use is vital to supporting the pedestrian oriented aspect of the new site plan. Convenient, pleasant and logical pedestrian access from the staff parking areas to each of the employment centers is a critical design issue. Staff should not be required to walk around buildings or to walk through parking areas for any significant distance, or inappropriate shortcuts and compromised safety may result.

Surface parking lots should have their visual impact reduced by landscape screening and generous placement of shade trees within the parking lot.

The number of parking spaces for specific building / areas on area "B" have been estimated in the table below. All of the parking requirements below are surface parking except for the 1000 spaces in the SAMS Complex parking structure.

Area B Parking	Spaces
SAMS Complex (1000 structure and 100 surface)	1100
Consolidated Support Center (ABG Building)	275
Child Development Center	34
Medical Clinic	86
Fitness Center	8
Base Exchange	400
Commissary	288
Visitor's Center	11
GOV	60



## **Security Perimeter**

Force Protection shall be incorporated into the planning and architectural design of the LAAFB. A security perimeter will be required, as will more specific considerations as design of the facilities progress. LAAFB shall be consulted throughout the project so that security requirements can be integrated into the design in an appropriate and inconspicuous manner.

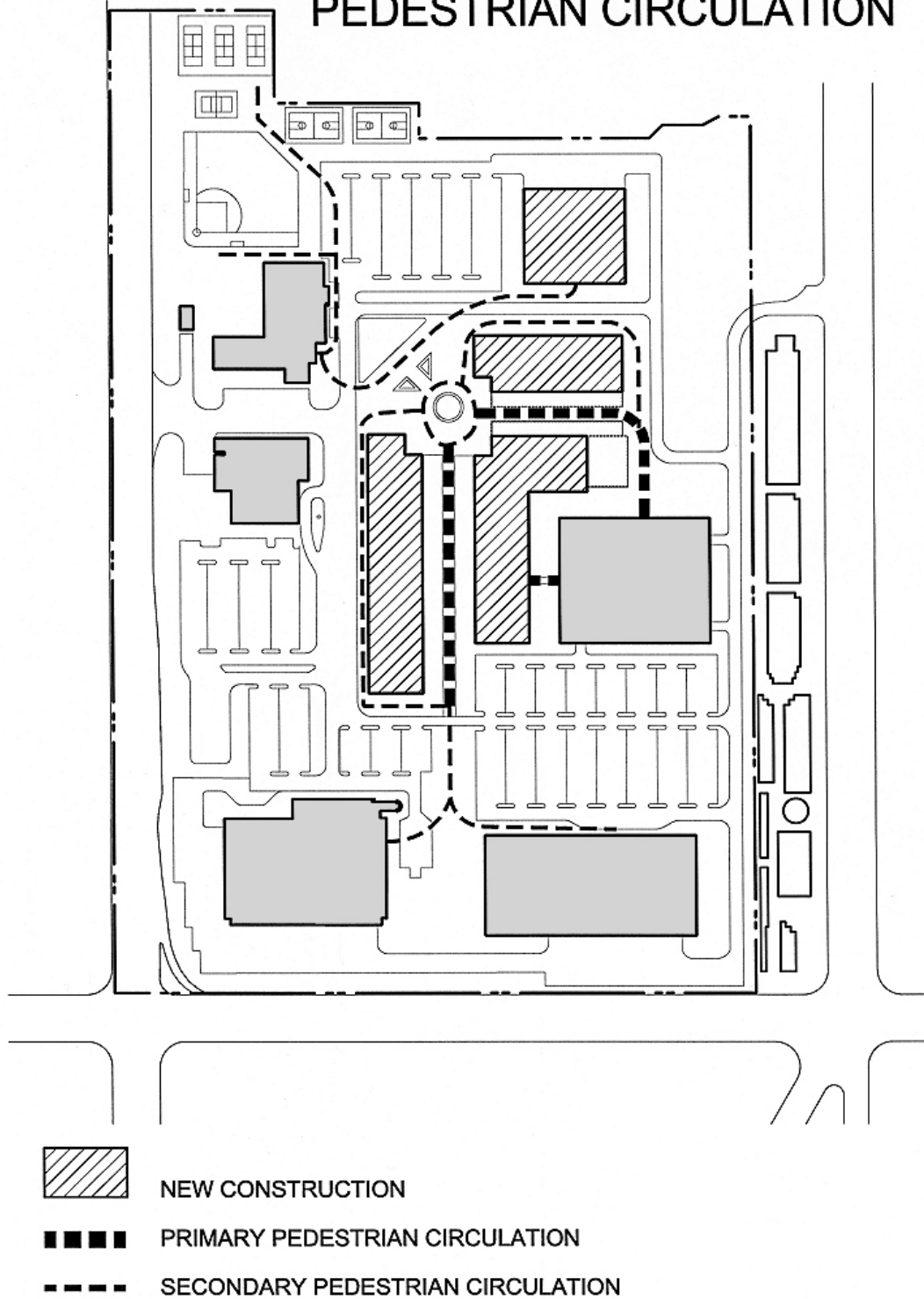
## **Pedestrian Circulation**

Immediately upon leaving ones car, pedestrian circulation routes that are safe, orderly and attractive routes should be provided. Way finding may be augmented by signage, but should be primary intuitive by the design of the site, the landscape, open spaces and the buildings and entrances.

The central mall and plaza will be oriented exclusively to pedestrians. These important areas should be nodes within a network of pedestrian routes that serve the entire site and ultimately the entire Base. This will allow outdoor areas that can be used not only for traversing the Base from one building to another, but as a pleasant and stimulating additional space for thought, breaks and formal or informal discussion. Special paving materials, colors and patterns should be incorporated into the design. This same open space, viewed from the windows of the offices above, will provide pleasant, quiet vistas internal to the site. A water feature shall be included in the formal plaza area, and smaller water features may be included in the mall. Both the mall and plaza shall incorporate seating areas for small groups of people. Shading devices in the form of shade trees and trellis elements should enhance the area.

Pedestrian circulation from the new facilities to other areas of the site including the Medical/Dental Clinic, Fitness Center, Commissary, etc. should also be developed with the same care, as those paths will also be highly utilized. Personnel should have no reason to move their vehicle from one part of the Base to another once they have parked for the day if the site planning and amenities design is sufficiently walkable, efficient and clearly directed.

## PEDESTRIAN CIRCULATION

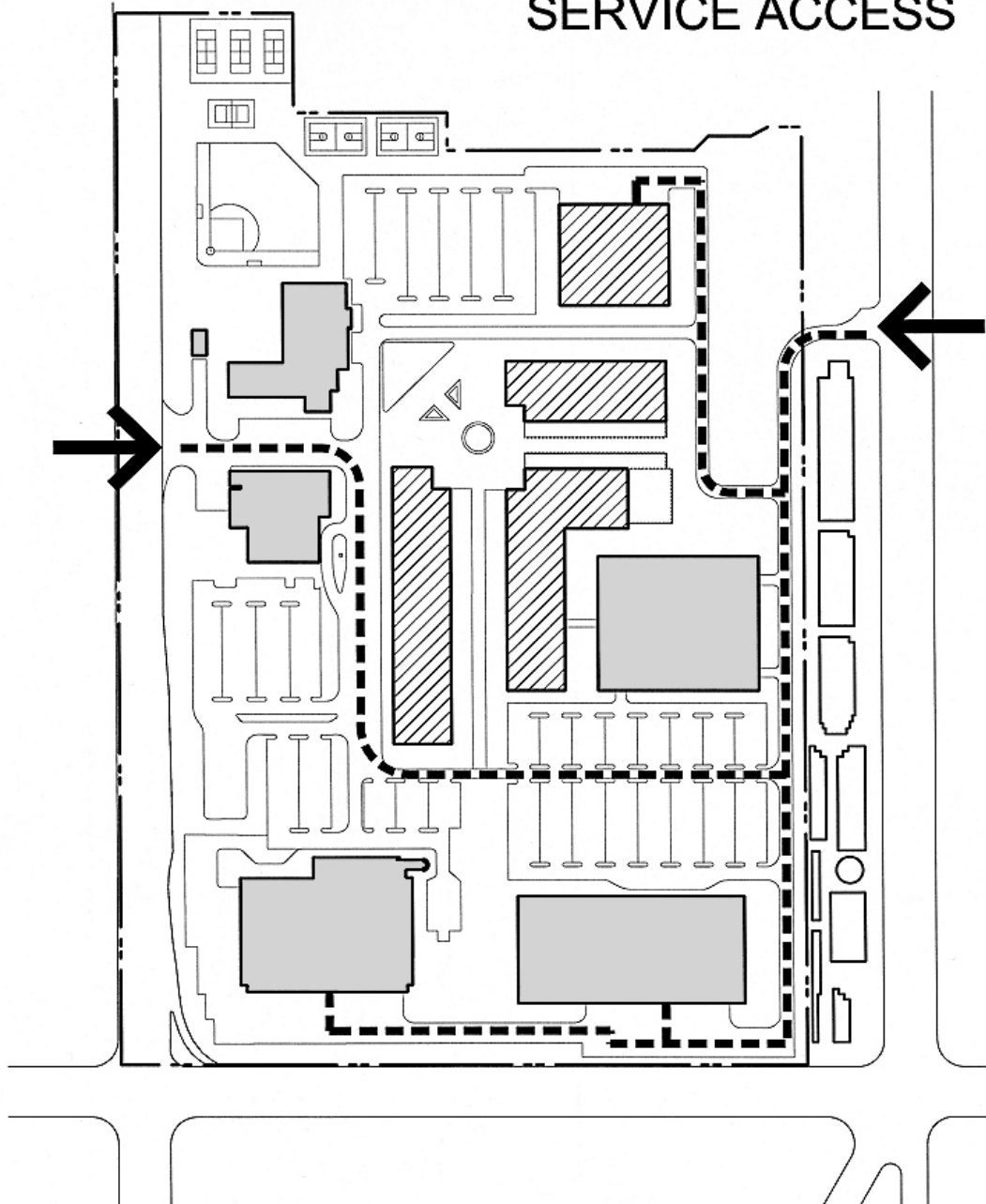


## **Service Access**

Consideration should be given to service vehicle access. Vehicles of varying sizes, from 18 wheels to panel trucks, will need to have access to the site. A single, primary loading dock shall be located at a point that keeps intrusion into the site by large delivery vehicles to a single location. Secondary service access for smaller vehicles should be limited to clearly defined and appropriately scaled access routes and delivery points that do not require use of pedestrian ways, and are not readily visible or noisy to those working on the base. Access for emergency vehicles can be limited in areas to emergency use only by use of breakaway bollards, decorative but vehicle supporting paving, or other traffic controlling devices.



# SERVICE ACCESS



NEW CONSTRUCTION



SERVICE ENTRY



SERVICE VEHICLE ACCESS

## Open Space

Open spaces will serve to define the LAAFB site. Open spaces will range from the formal plaza with flags at the northwest end of the SAMS site area to smaller courtyards resulting from the definition of the mass of the buildings. The center mall of the SAMS development is the main organizing element of that portion of the base, and needs to be carefully designed to assure activity and functional sitting areas of varying sizes and configurations.

Buildings should be arranged and massed to achieve spatial articulation and emphasis of building entrances and forms. The buildings should provide the enclosing framework for the people oriented “spaces between”.

Protection from wind, as well as sun is required. Care shall be taken that wind and shade patterns altered by the building mass be anticipated so that the spaces between the buildings can successfully function as desirable and usable outdoor seating areas at all times of the day and through all seasons.

Open space also includes the pedestrian ways from parking to the building entrances. These areas need to be designed to be pleasant and passively secure.

A monument sign as well as Air Force displays may be incorporated into the plaza.

## OPEN SPACE

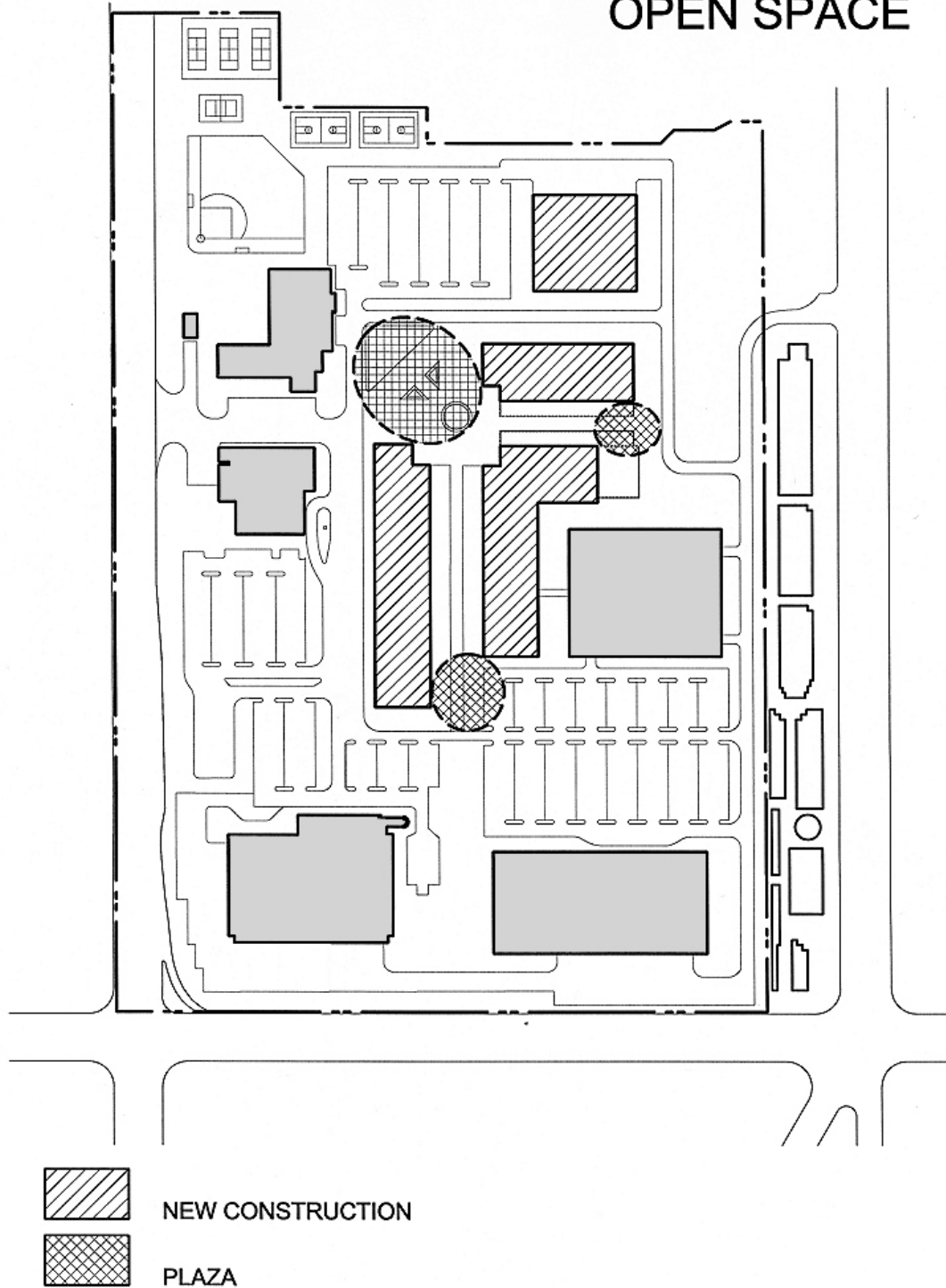
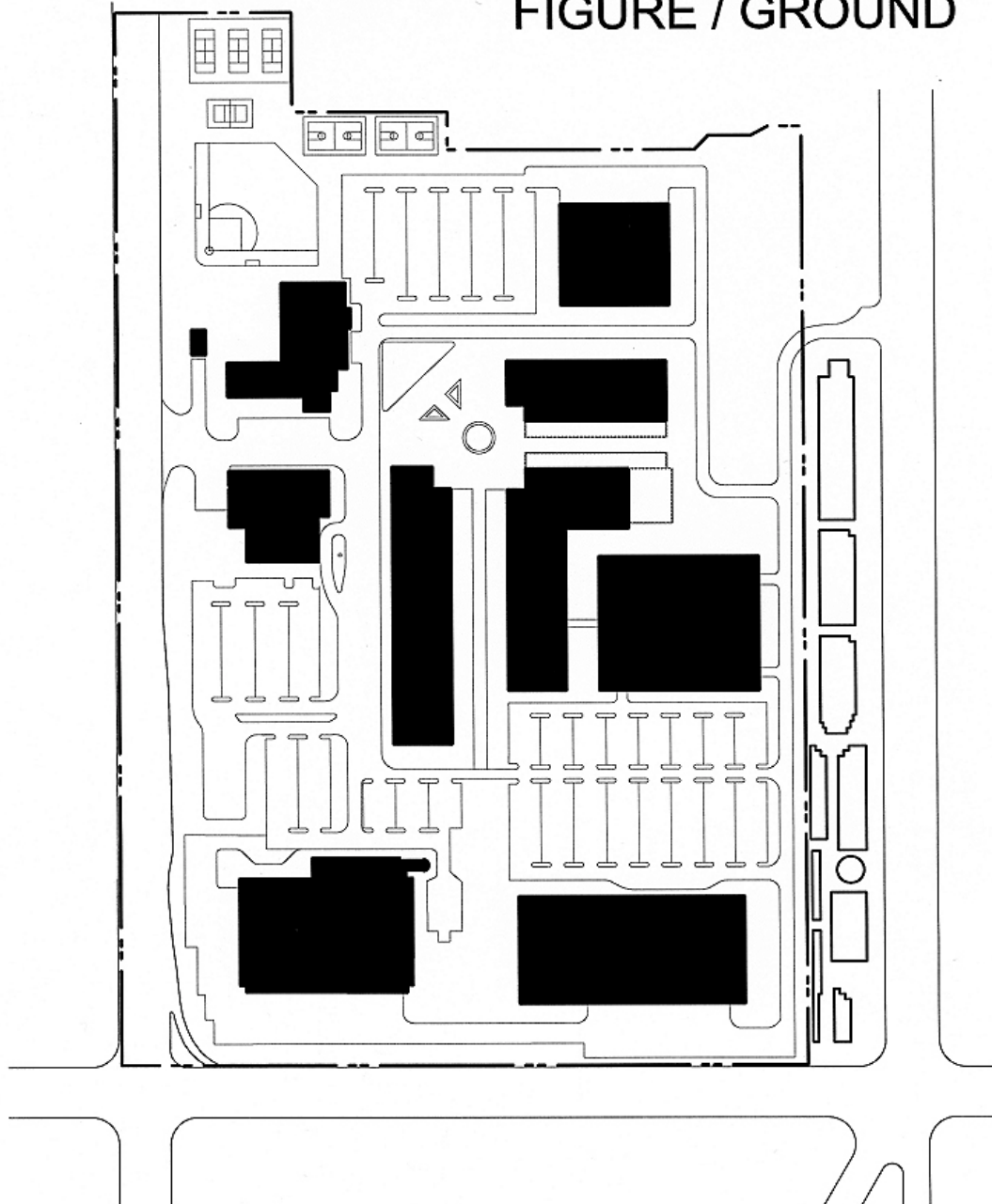


FIGURE / GROUND



## **SAMS Alternative Site Plan Layouts**

The office buildings will primarily be four to five stories. Consideration shall be given to human scale and incorporation of massing setbacks, roof terraces, and stepped back façade treatments to add interest to the buildings. Vantage points from the surrounding community, as well as those on the Base and from the pedestrian spaces adjacent to the buildings should all be considered. Entrances and facades adjacent to pedestrian spaces should be especially proportioned and detailed to accommodate human scale. Provide shadow lines, detailed fenestration and façades and other architectural elements to accentuate proportion and approachability of the buildings where people will come in contact with the building exterior.

### **Alternative One –**

Alternative one uses the idea of “portals” as entry points, alternative one used two duplicated, reversed buildings as a portal entry into the central open space of the SAMS complex. The larger building to the west serves as a “focal point” from the parking garage to the central open space. The two “mirrored” buildings allow for a repetitive design/build package.

### **Alternative Two –**

Alternative two also utilizes two duplicated, reversed buildings on the western side of the SAMS complex and an L-shape building on the eastern side. The northern most ends of the buildings open up to the defined “plaza” to the north.

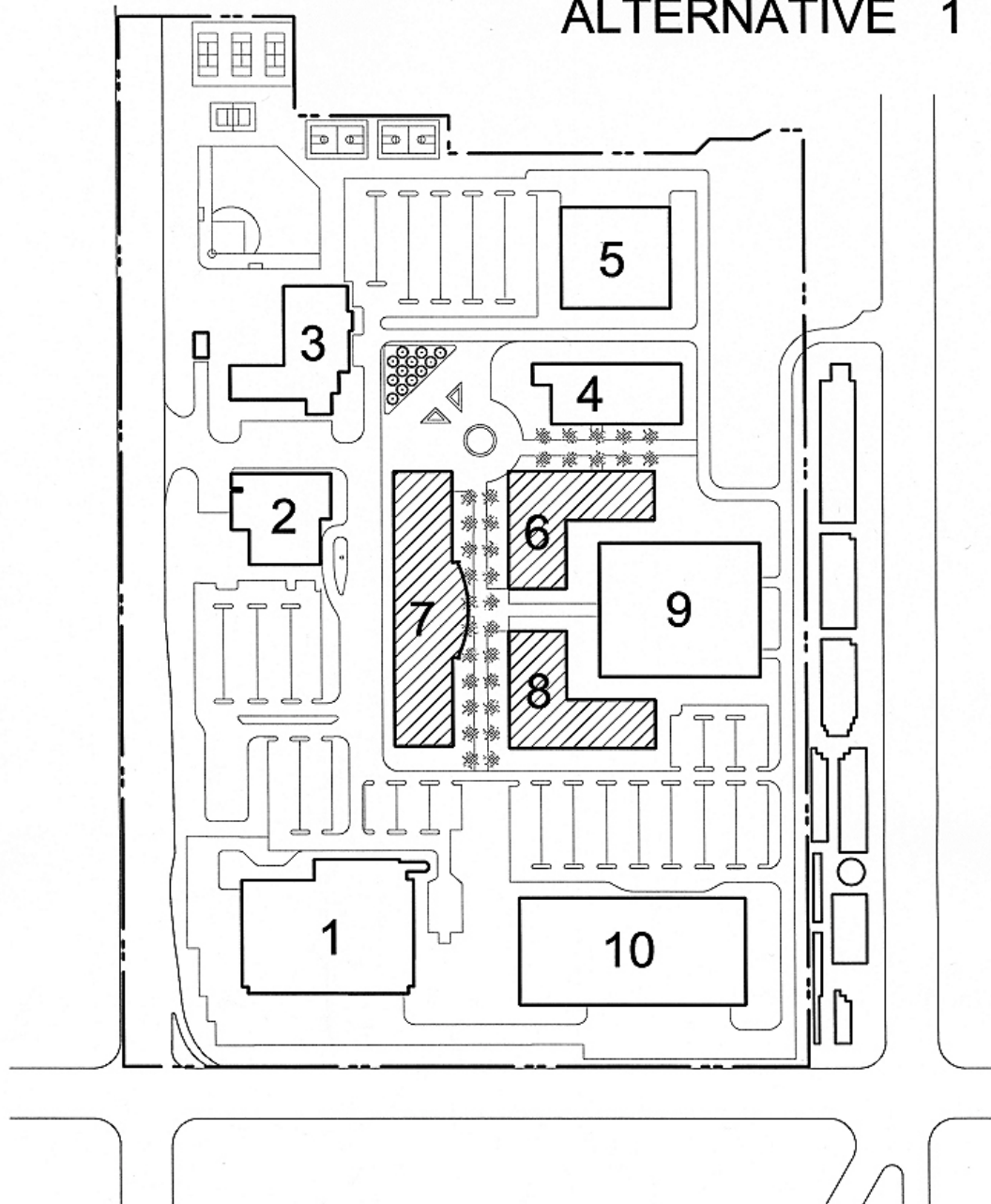
### **Alternative Three –**

Alternative three has three distinct buildings. The western building is conceived as a “stepped” building in plan helping to break up its relative mass. The two eastern buildings have the potential of being connected by a “bridge” element.

The three master plan alternatives are shown for conceptual master planning purposes and programmed square footage reconciliation only. Offerors are encouraged to propose alternate solutions based on the above design criteria.

Design of the parking structure shall reflect and compliment the design of the office buildings. While serving a different function and having its own structural system, the exterior treatment of the two facilities should be unified, but not mimicking.

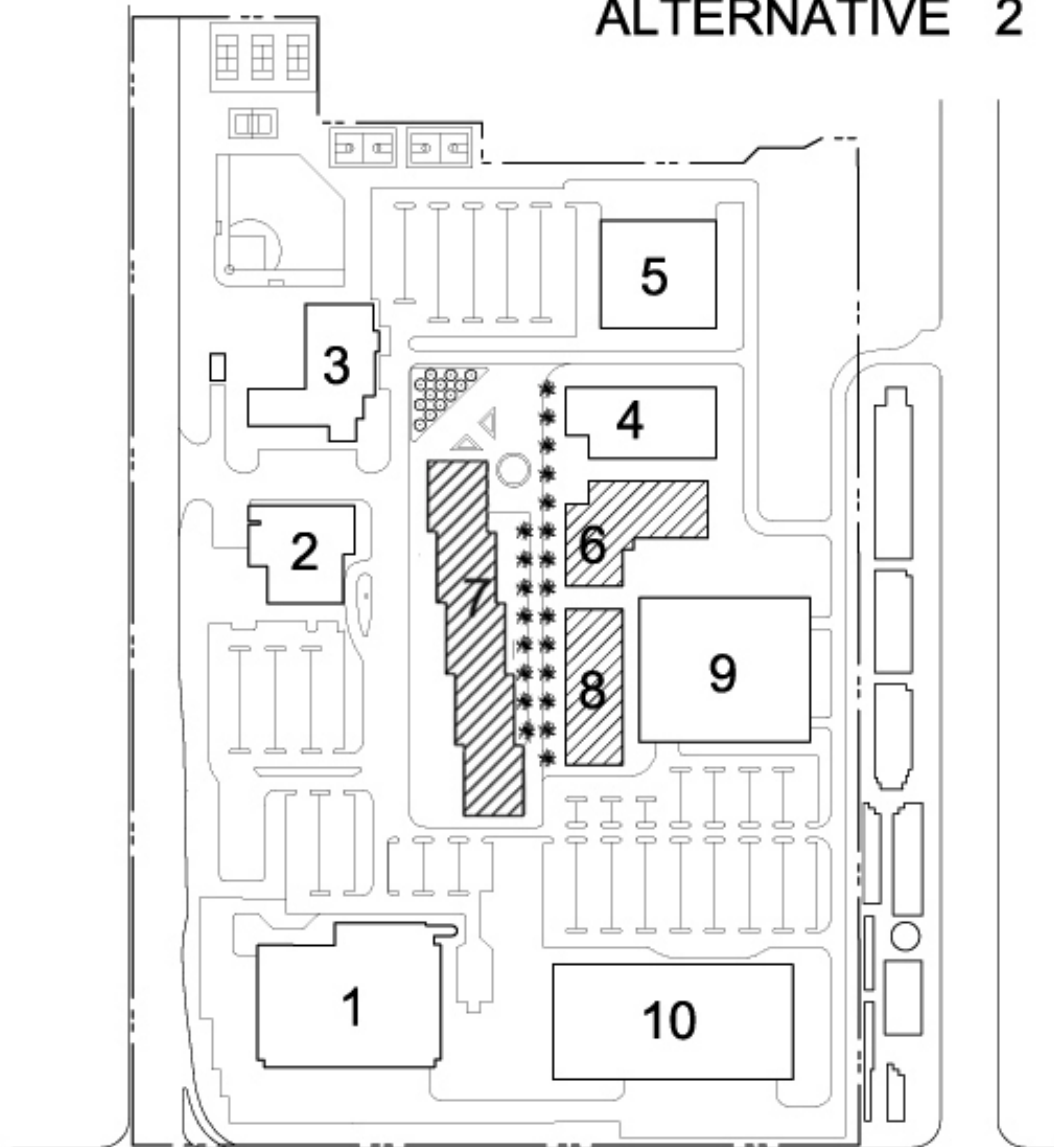
## ALTERNATIVE 1



1. COMMISSARY
2. MEDICAL/DENTAL CLINIC
3. PHYSICAL FITNESS CENTER
4. ABQ HQ/PHASE 1
5. ABQ HQ/PHASE 2

6. SAMS PROJECT - BLDG. 1
7. SAMS PROJECT - BLDG. 2
8. SAMS PROJECT - BLDG. 3
9. PARKING STRUCTURE
10. BASE EXCHANGE

## ALTERNATIVE 2

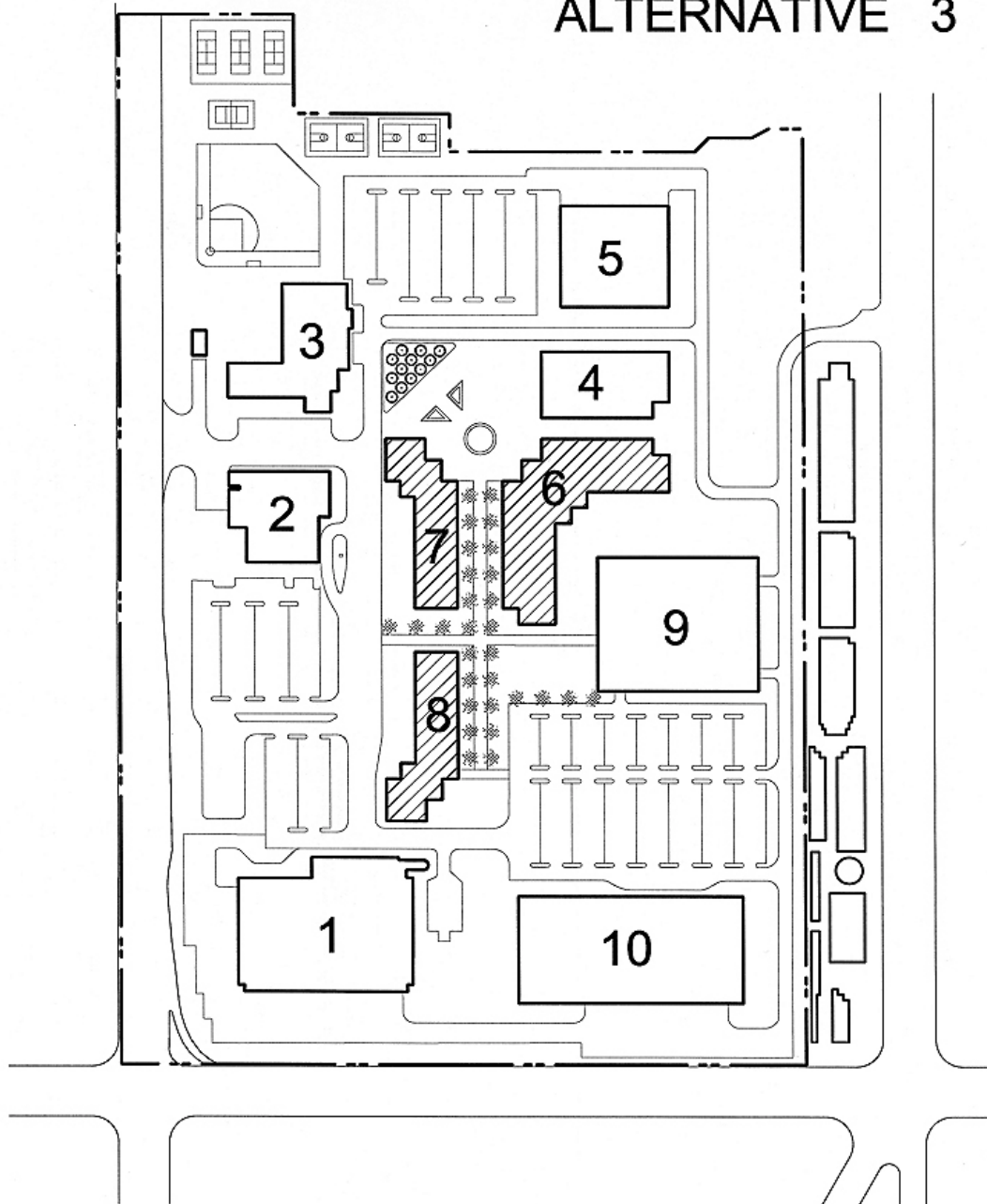


1. COMMISSARY
2. MEDICAL/DENTAL CLINIC
3. PHYSICAL FITNESS CENTER
4. ABQ HQ/PHASE 1
5. ABQ HQ/PHASE 2

6. SAMS PROJECT - BLDG. 1
7. SAMS PROJECT - BLDG. 2
8. SAMS PROJECT - BLDG. 3
9. PARKING STRUCTURE
10. BASE EXCHANGE



## ALTERNATIVE 3



1. COMMISSARY
2. MEDICAL/DENTAL CLINIC
3. PHYSICAL FITNESS CENTER
4. ABQ HQ/PHASE 1
5. ABQ HQ/PHASE 2

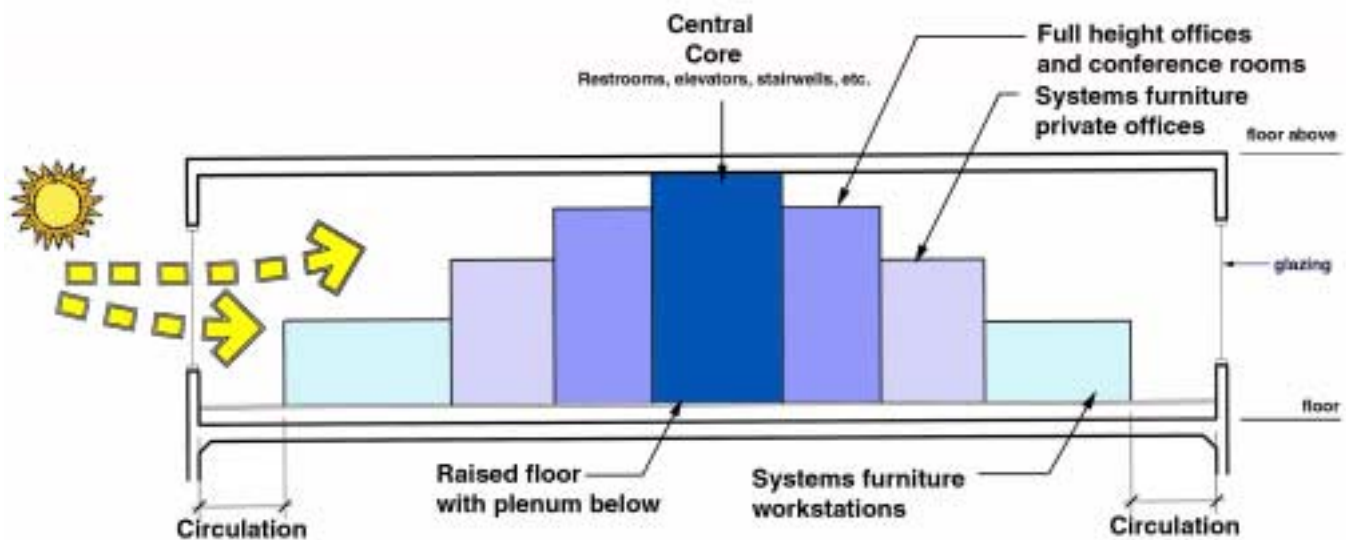
6. SAMS PROJECT - BLDG. 1
7. SAMS PROJECT - BLDG. 2
8. SAMS PROJECT - BLDG. 3
9. PARKING STRUCTURE
10. BASE EXCHANGE



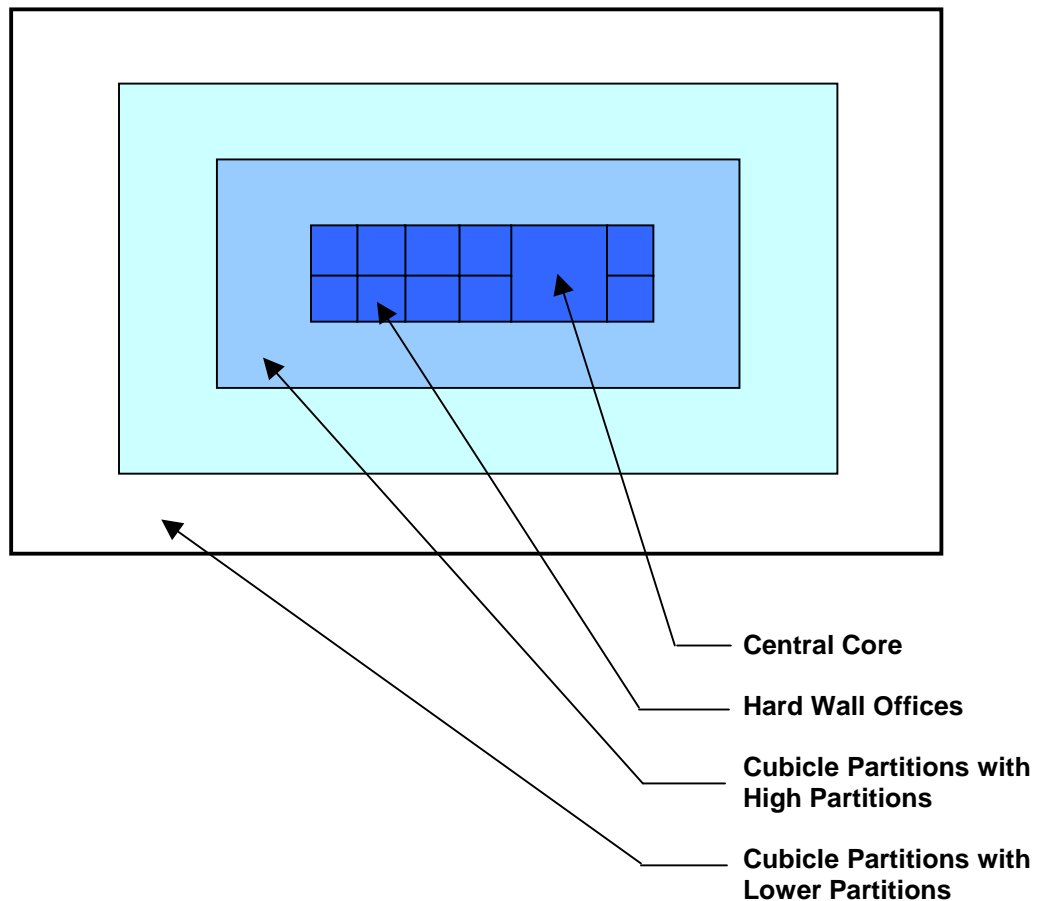
## **VI. SAMS Massing and Facade Guidelines**

The massing and facade appearance of the SAMS complex, as it rises from the ground, is dependent on the building layouts, final footprints and how the buildings are vertically configured to accept daylighting. The following are guidelines for those developments.

### **Floor Plate and Typical Floor-Building Section Analysis**



## Preferred Typical Floor-Building Section to Maximize Natural Daylight Penetration into Work Areas

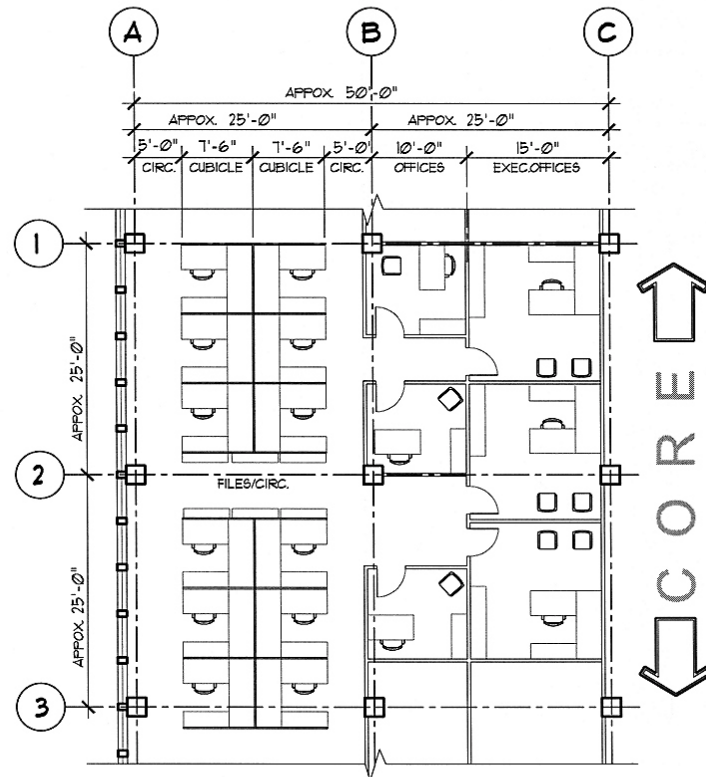


## Preferred Typical Floor-Building Floorplate to Maximize Natural Daylight Penetration into Work Areas

Typical floorplates and sections in SAMS office space will be organized as follows to maximize penetration of daylight into interior spaces:

- Hard wall offices will be located in the interior of the space, adjacent to the core.
- Cubicles with higher partition walls will be located adjacent to the hardwall offices and core, separated by a major corridor.
- Cubicles with lower partition walls will be located adjacent to the exterior of the building. Conference rooms and teaming areas will be located in this area as well.

## FLOOR PLATE ANALYSIS



The individual building diagrams are based on the floor plate analysis as derived from the preferred typical floor-building section. This floor plate analysis allows for an outer bay with perimeter circulation and two rows of systems furniture workstations. The internal bay allows for one row of systems furniture private offices and another row of full height offices. The bay at the central core contains restrooms, vertical circulation and ancillary support spaces.

## **Building Diagrams**

The primary design guidelines for the individual floor plates are as follows:

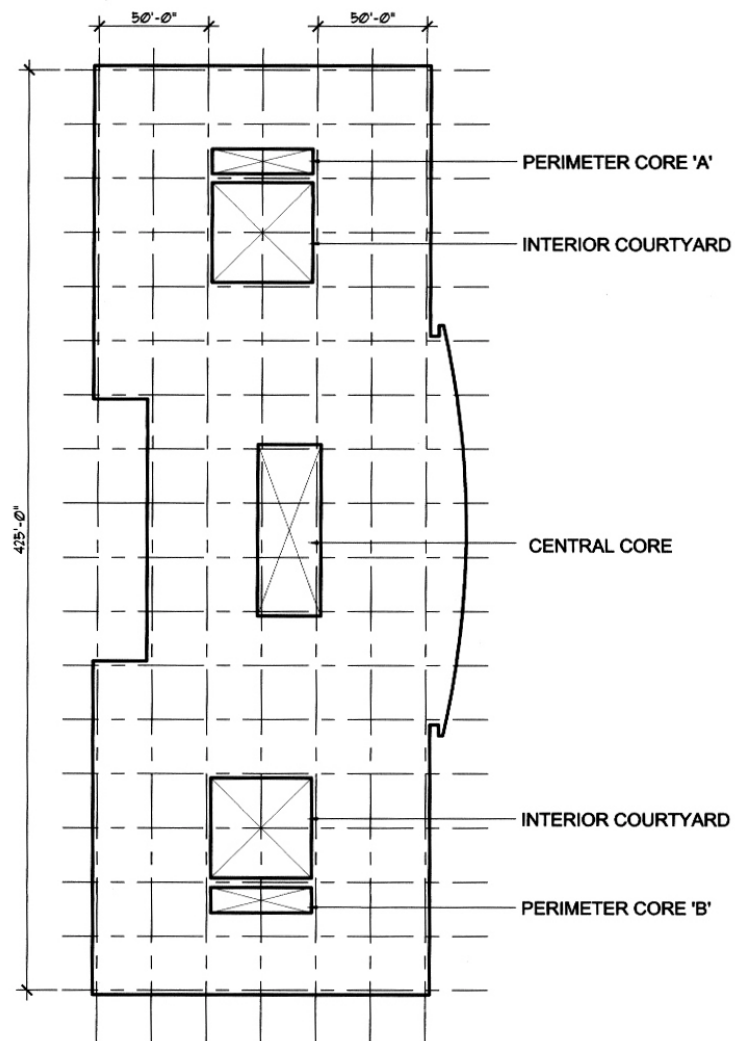
Two structural bay widths of approximate 25'-0" spacing are created around a central core space of approximately 25'-0". The two structural bays wrap around the central core space in configurations based on the individual floor plate square footage requirements. These square footage requirements are taken from the three master plan schemes contained within the Design Guide.

Building masses are achieved through shifting the bays in order to articulate the individual façade. Additional articulation is achieved by creating recesses into the first structural bay or by pulling the façade away from the building and creating a curved façade in portions of the building's exterior.

All building square footages are based on creating midrise buildings of the required square footages.

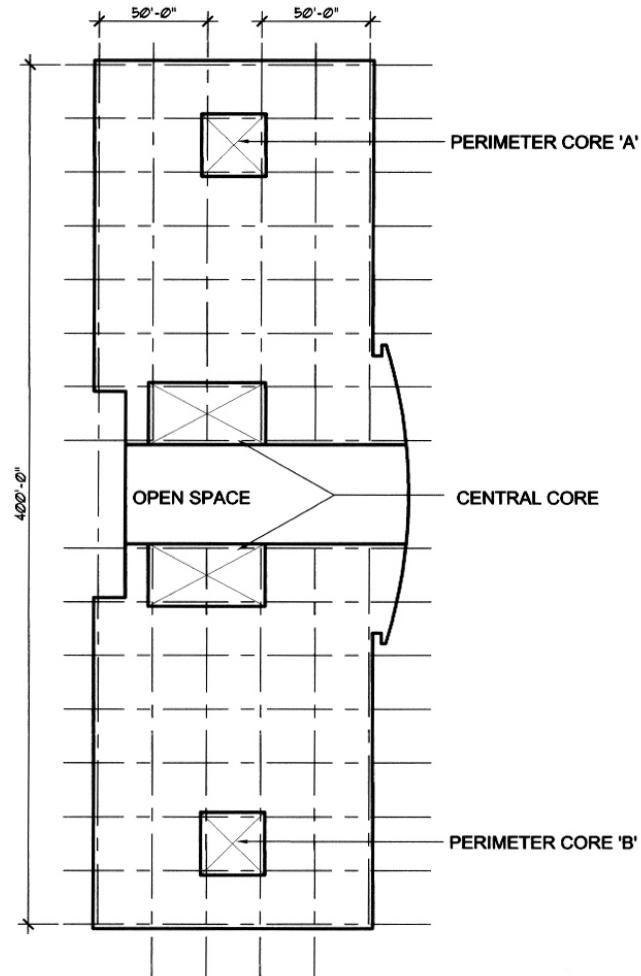
Following are example study floorplates. The Offeror is encouraged to develop his own floorplate designs. The dimensions indicated on the following drawings are intended to illustrate the design guidelines. The Offeror is encouraged to resolve the design issues in a creative manner.

# ALTERNATIVE 1 SAMS PROJECT-BLDG. 2A



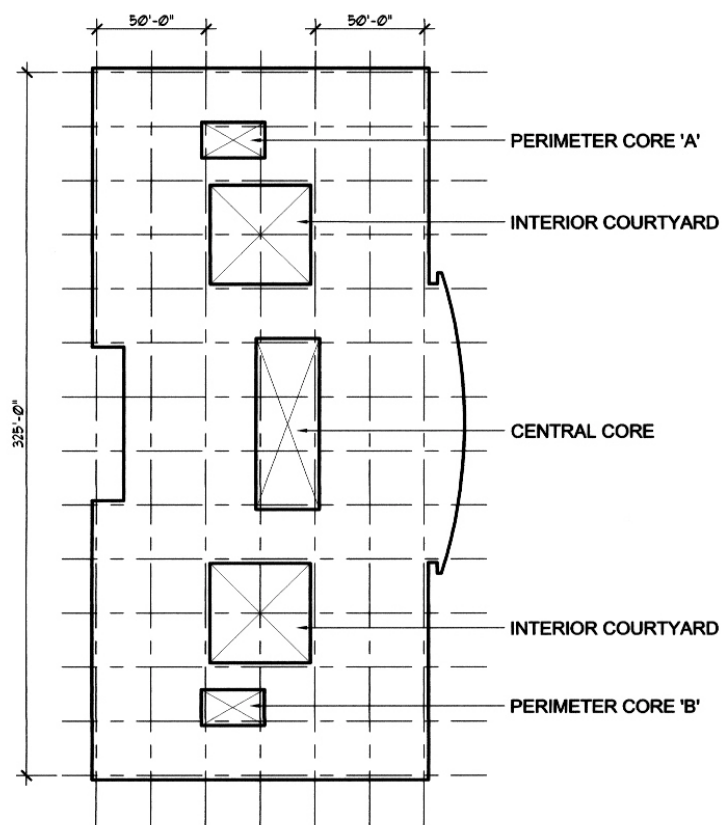
63,750 S.F. FLOOR  
318,750 S.F. BUILDING

ALTERNATIVE 1  
SAMS PROJECT-BLDG. 2B



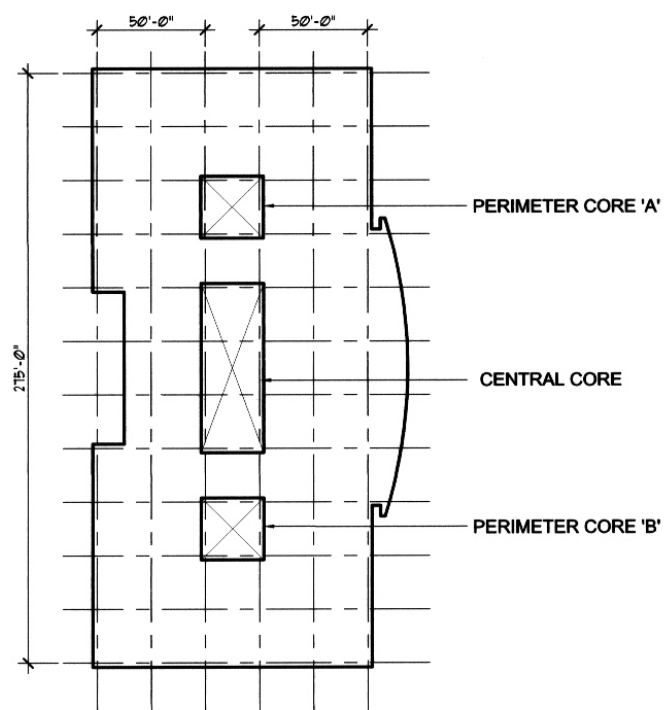
50,000 S.F. FLOOR  
250,000 S.F. BUILDING

ALTERNATIVE 1  
SAMS PROJECT-BLDG. 2C



48,750 S.F. FLOOR  
243,750 S.F. BUILDING

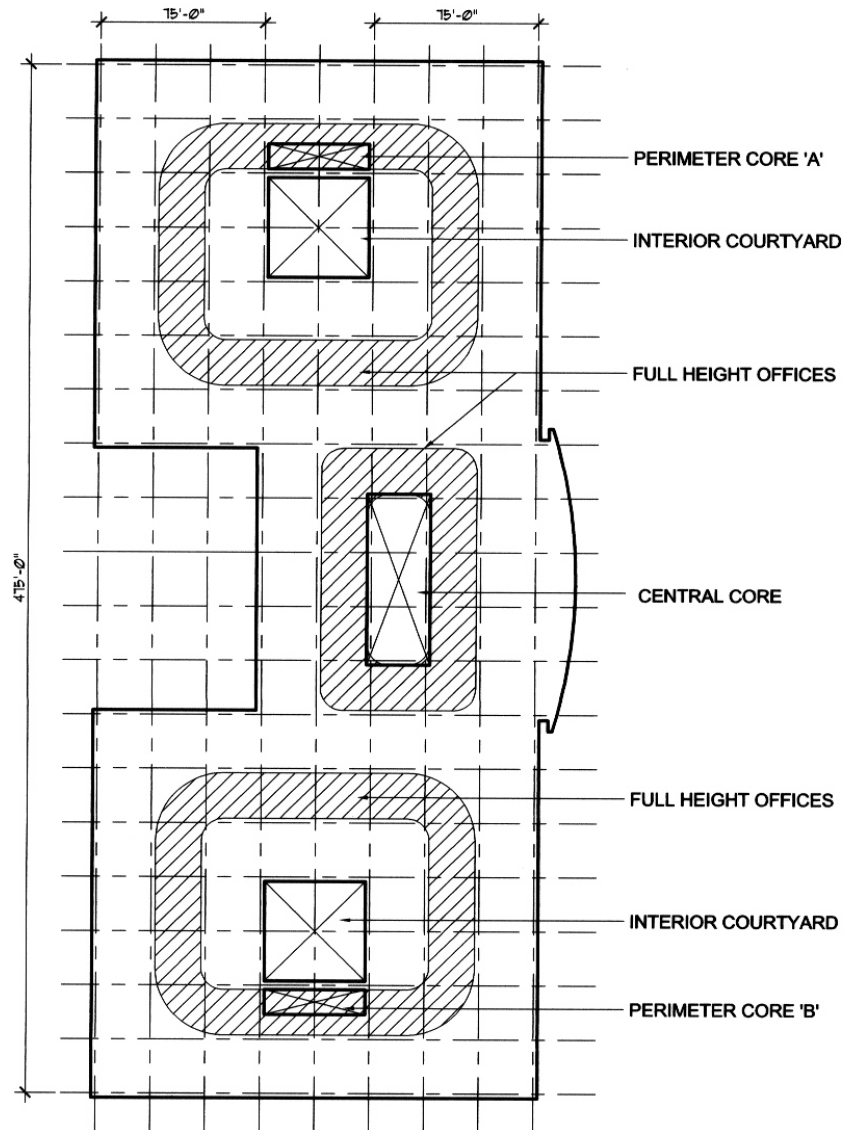
ALTERNATIVE 1  
SAMS PROJECT-BLDG. 2D



34,375 S.F. FLOOR  
171,875 S.F. BUILDING

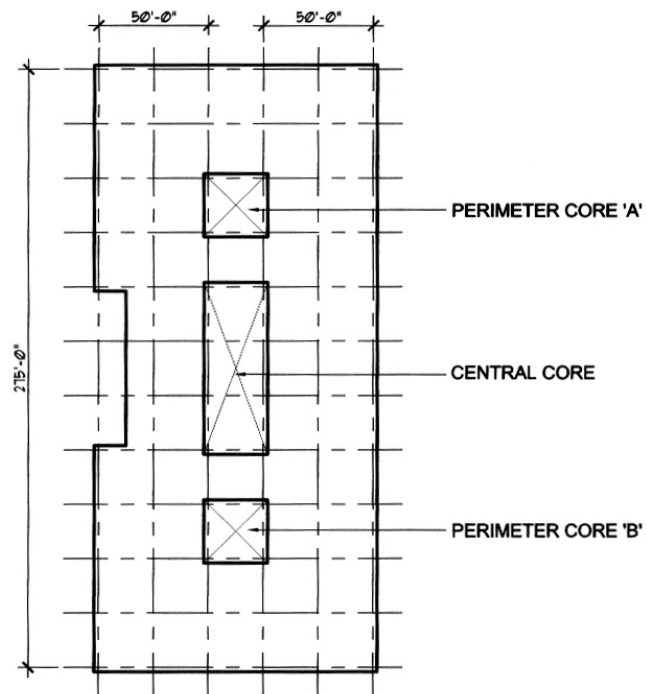


# ALTERNATIVE 1 SAMS PROJECT-BLDG. 2E



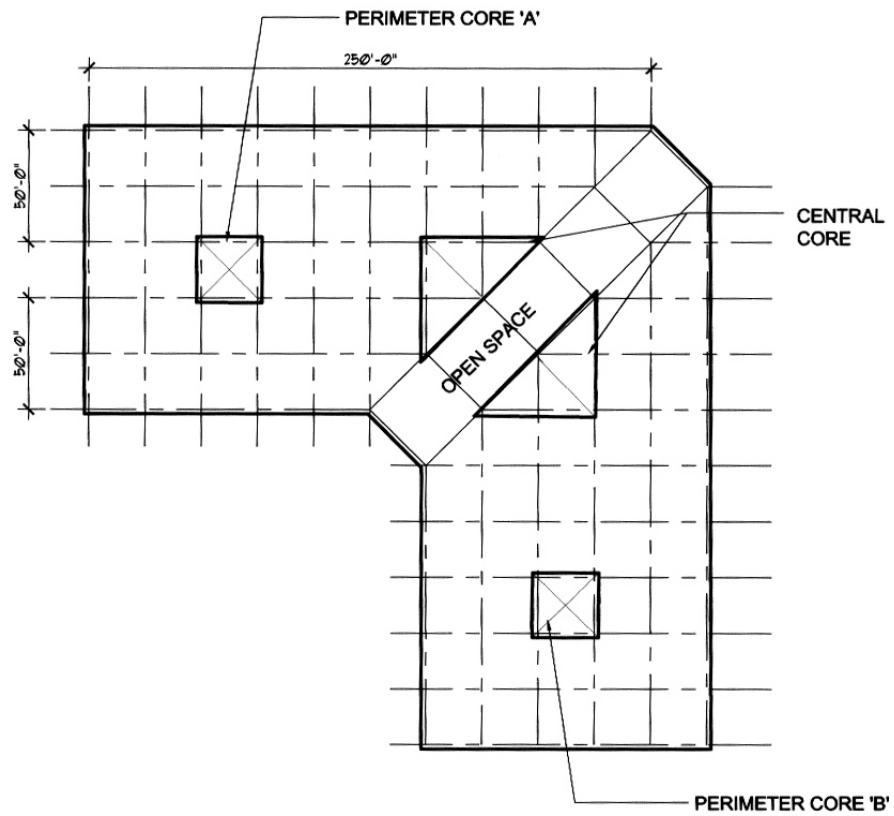
90,475 S.F. FLOOR  
271,425 S.F. BUILDING  
(3 STORIES)

ALTERNATIVE 2  
SAMS PROJECT-BLDG. 3



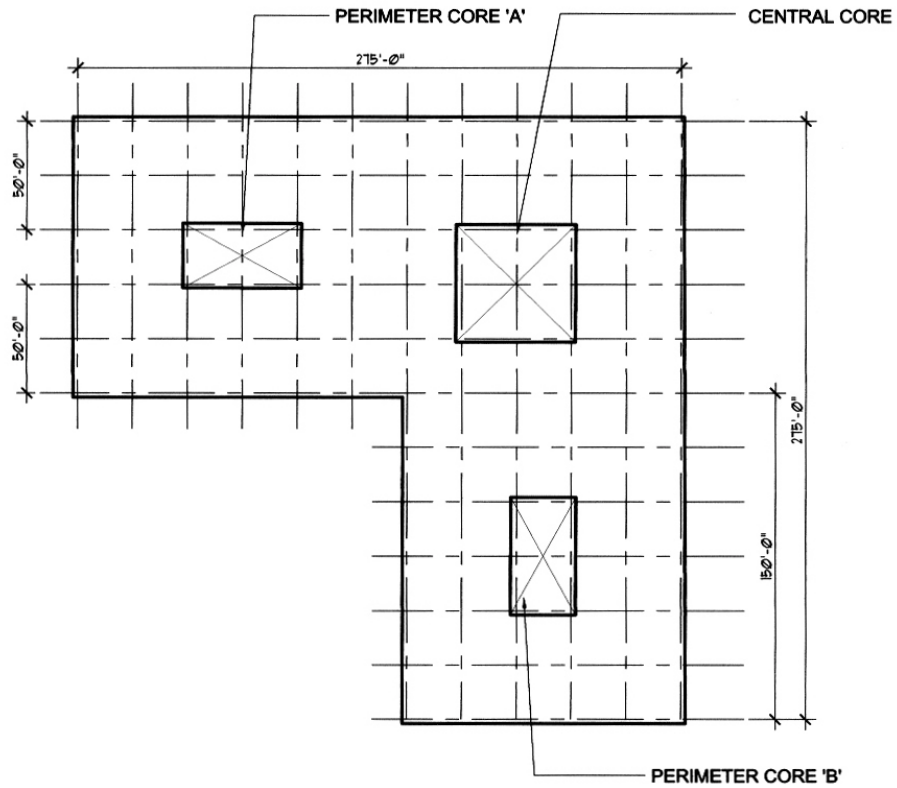
34,375 S.F. FLOOR  
171,875 S.F. BUILDING

# ALTERNATIVE 1 & 3 SAMS PROJECT-BLDG. 1 & 3



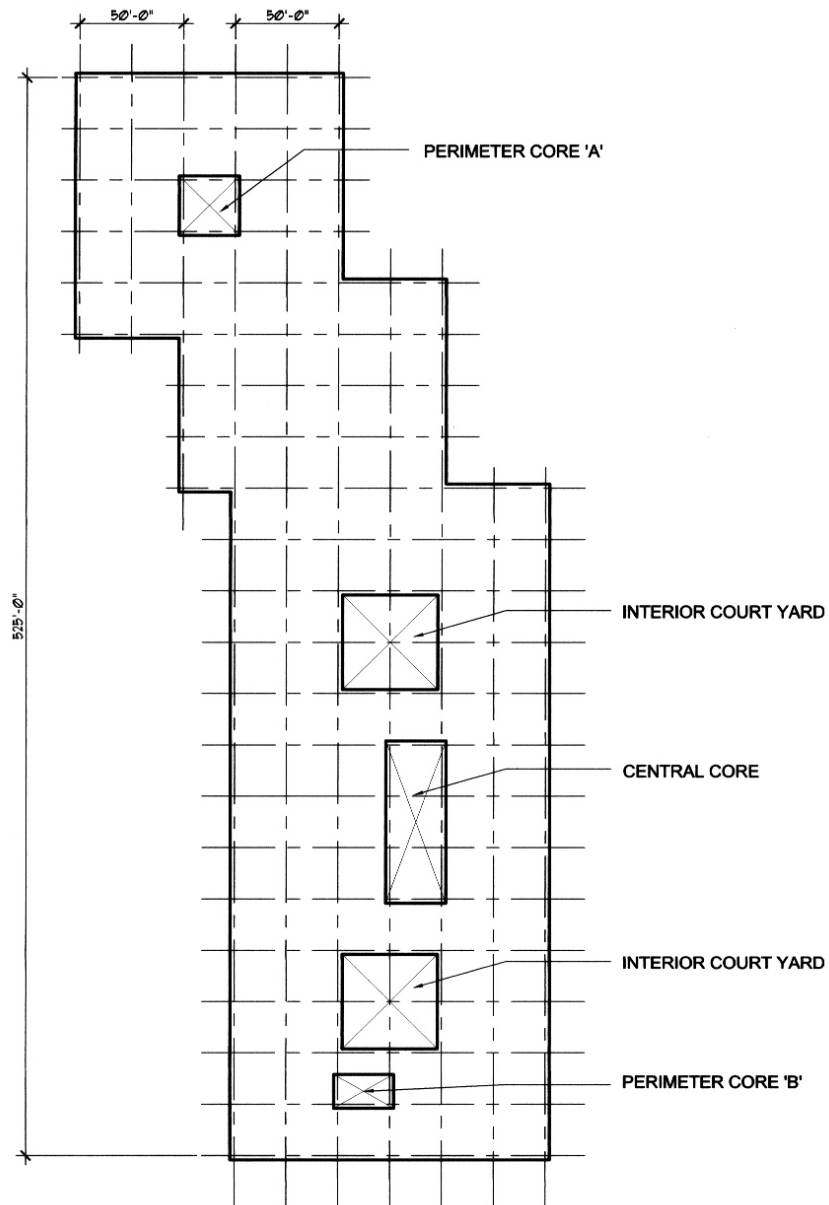
46,000 S.F. FLOOR  
230,000 S.F. BUILDING

**ALTERNATIVE 1 & 3**  
**SAMS PROJECT-BLDG. 1 & 3**



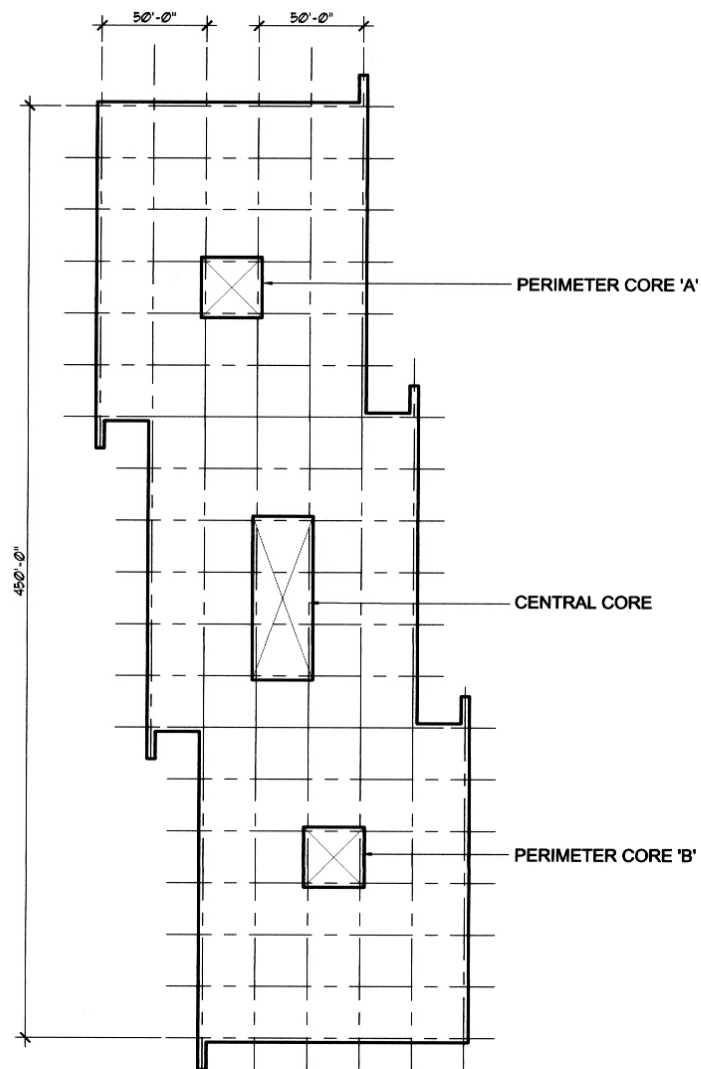
52,575 S.F. FLOOR  
262,875 S.F. BUILDING

### ALTERNATIVE 3 SAMS PROJECT-BLDG. 2&3



75,000 S.F. FLOOR  
375,000 S.F. BUILDING

## ALTERNATIVE 2 SAMS PROJECT-BLDG. 2



56,250 S.F. FLOOR  
281,250 S.F. BUILDING

## Massing and Facade Photo Guidelines

Following are guides through photographic example of desired feature of the SAMS complex.

### BUILDING ENTRY GUIDELINES



- Entrance shall be clearly identifiable and designed to pedestrian scale while being in proportion to the building mass.
- Provide covering for inclement weather by incorporating either a building recess or a canopy integrally designed with the building.
- Consider curved roof elements as a contrast to grid-like nature of typical façade articulation and to provide continuity with other LAAFB facilities.
- Consider developing building entries as connecting elements between individual building masses.



## BUILDING MASSING GUIDELINES



- Consider stepped facades to alleviate box-like masses.
- Provide clearly defined building entrances.
- Consider curved façade elements to complement existing LAAFB facilities.
- Consider curved roof elements at lower story to complement existing LAAFB facilities.
- Buildings shall primarily be 4 to 5 stories in height.



## FACADE ARTICULATION GUIDELINES



- Express either a vertical or horizontal ribbon window scheme, punched or individual windows should be avoided.
- Provide for sufficient recess in window system in order to alleviate thin appearance of exterior building materials and to provide a shadow line.
- Consider expressing ground floors as a “base” to the overall building as a material or articulation change.
- Consider shading elements on appropriate exposures. Maximize natural light penetration into interior spaces.
- Façade articulation shall express the individual floor levels of the building

## CAMPUS MASSING GUIDELINES



- Massing shall create courtyards and malls at a pedestrian scale.
- Building articulation and materials for office buildings, parking structure, and existing LAAFB facilities shall be complimentary.
- Massing shall accommodate varying individual building heights within design guide square footage requirements.
- Consider non-parallel juxtapositions of individual buildings to provide for interesting courtyard and mall areas.
- Consider massing of SAMS buildings within the context of LAAFB as a whole.

## COURTYARD/MALL GUIDELINES



- Courtyards and malls shall be of a comfortable and welcoming pedestrian scale.
- Incorporate hardscape and landscape in an integral manner.
- One of the public gathering areas shall accommodate a large group.
- Provide smaller intimate places for conversation and breaks with seating areas that provide shade.
- Consider solar and wind orientation of outdoor areas.
- Consider water features.

## PARKING GUIDELINES



- Complimentary to the adjacent office buildings in materials and articulation.
- Naturally ventilated.
- Vertical circulation components expressed as exterior elements.
- Relate pedestrian circulation to adjacent buildings.
- Open access (non-gated).

## **Architectural and Engineering Requirements**

### **Process Narrative**

The Air Force envisions using a design build process for the SAMS Complex. It is intended the Successful Offeror will use the information in this document to design and construct what is essentially a build to suit facility. Throughout the process the Successful Offeror will need to work closely with the Air Force since construction phasing is required in order to avoid disruption to ongoing Air Force missions.

After the project has been awarded to a single Offeror, the Air Force must be involved in the design of the facility including the finish levels, floor plan layout, communications, and color/material selections.

Once the project starts construction, the Offeror shall have a fulltime project manager and will maintain an on-site presence. The project manager will develop a quality assurance plan and make copies available to the Air Force management team.

### **Facility Finish Levels**

Finish levels within the SAMS Complex will vary depending on the use and function of the workspace. The facility finish level table illustrates the Air Force's expectation for the SAMS Complex.

Area Type	Finish Level	Loc.	Description
Executive Offices	E/E+	Walls Base Ceiling Floor Trim	Fabric Wall Covering Wood Acoustical Ceiling Tile Carpet Wood Chair Rail
Offices	O+	Walls Base Ceiling Floor Trim	Painted Gypsum Board Vinyl Acoustical Ceiling Tile Carpet Wood Chair Rail
Offices	O	Walls Base Ceiling Floor Trim	Painted Gypsum Board Vinyl Acoustical Ceiling Tile Carpet None
Workstations	W	Walls Base Ceiling Floor	Panel System N/A N/A Carpet

Area Type		Finish Level	Loc.	Description
			Trim	None
Executive Rooms	Conference	E	Walls Base Ceiling Floor Trim	Fabric Wall Covering  Wood Acoustical Ceiling Tile Carpet Wood Chair Rail
Conference Rooms		O	Walls Base Ceiling Floor Trim	Painted Gypsum Board Vinyl Acoustical Ceiling Tile Carpet Chair Rail
Meeting Rooms		W	Walls Base Ceiling Floor Trim	Panel System Vinyl Acoustical Ceiling Tile Carpet None
Teaming Rooms		W	Walls Base Ceiling Floor Trim	Panel System N/A N/A Carpet None
Support Rooms		S	Walls Base Ceiling Floor Trim	Painted Gypsum Board Vinyl Acoustical Ceiling Tile Vinyl Title None
Restrooms		R	Walls Base Ceiling Floor Trim	Ceramic Title Ceramic Title Painted Ceramic Title N/A
Hallways		H	Walls Base Ceiling Floor Trim	Vinyl Wall Covering Wood Acoustical Ceiling Tile Carpet Wood Chair Rail
SCIF		O	Walls Base Ceiling Floor Trim	Painted Gypsum Board Vinyl Acoustical Ceiling Tile Carpet N/A



## **Interior Materials and Finishes Submittals and Requirements**

### Walls

All interior walls shall:

- Be constructed to the underside of the structure above; and
- Be steel-frame (wood framing is prohibited).
- Have washable paint, Type II vinyl wall covering or UBC 8.2 rated fabric wall covering.

Toilet areas, lavatory areas, and showers shall have full-height ceramic tile wall finish adjacent to sinks and toilet areas, other areas have a GWB finish. Acoustical insulation shall be provided at demising walls and walls requiring an STC assembly.

Lobbies shall have natural stone, WIC Premium book-matched paneling, or similar material treatment as appropriate for a Class A office building. Offerors are encouraged to provide alternate, more cost-effective materials and finishes in lobbies, while still suitable for Class 'A' use. Walls at corridors, conference rooms, closed offices, restrooms, and similar adjacencies shall have STC 45 minimum. Care shall be taken that ceiling-to-wall, wall-to-door, and similar interfaces maintain the minimum STC. The Air Force may designate specific rooms that require a higher STC rating because of their function.

Walls-After award and during the design/build phase the Offeror shall submit:

- Product data and shop drawings of framing components for different wall finish materials;
- 2' x 2' minimum mock-ups showing all ceramic walls, stone, wood paneling and similar materials; and
- Samples of all transition pieces and special elements

### Interior lights and Doors

Entrance doors to suites and departments (except to utility areas, see below) may be aluminum glass storefront system to match the exterior aluminum storefront system. Doors to suites and departments may be solid-core wood, oversized, with selected face veneers, five-ply minimum, and in conformance with WIC Premium grade standards. Doors within suites and departments shall be solid core wood with selected face veneers, five-ply minimum, and in conformance with WIC Custom grade standards. Wood doors shall be shop finished, stained, of solid-core construction, and shall have staved lumber, mineral, or particleboard cores (formaldehyde free). Doors shall have frames of comparable quality and design. Steel frames shall be fully welded.

Interior doors in utility areas shall be hollow metal with fully welded steel frames. Finishes shall be paint with shop primed rust inhibiting primer. Doors shall be heavy duty, 45 mm thick, Grade II, Model 2, core construction Type B, minimum.

Operable partitions (such as those used to divide meeting spaces) shall provide acoustical standards of 45 STC minimum, and shall have recessed floor and ceiling tracks, lock downs, and recessed storage.

Interior lights shall be aluminum or steel frame with clear or diffused glazing as appropriate for the function of the space. Where wire glass is required by code, it shall be square grid wire pattern. Interior glazing larger than a single light module shall be aluminum storefront system to match the exterior storefront system.

Interior Lights and Doors-After award and during the design/build phase the Offeror shall submit:

- WIC-Certified Compliance Certificates prior to installation;
- Product and installation data for all products and shop drawings for millwork;
- 1' x1' cross section and finish sample of each door and window type; and
- UL-rated assemblies certification for openings in rated partitions.

### Flooring

Use Engineering Technical Letter (ETL) 00-6: Air Force Carpet Standards for performance requirements for carpeting within the facility.

### Offices

Departmental offices, open office areas, departmental conference rooms, and rooms of similar uses (except those with raised flooring, see below) shall have commercial-grade 28-ounce minimum carpet. Areas within suites shall have 36-ounce minimum carpet over a pad. Office areas with raised floors shall have non-adhesive type 32-ounce minimum carpet tiles with corner positioning buttons. Field and accent carpet must be by the same manufacturer; and have a 10-year wear guarantee.

### Restrooms

Restrooms shall have full-set ceramic mosaic tile flooring, unglazed porcelain. Base tile and trim tile that matches floors shall be provided. Base shall be flush. Provide marble thresholds as a transition between ceramic tile and carpet.

### Other Spaces

Lobby floors shall be natural stone, terrazzo, or comparable material appropriate for a Class A office building. Utility, electrical, mechanical, janitor, and similar rooms shall have a sealed concrete floor. Dedicated computer rooms with raised floors shall have a hard surface floor as recommended by the raised floor manufacturer. Break-rooms, coffee bars, kitchens, and similar areas shall have at minimum, commercial-grade vinyl tile.



Flooring-After award and during the design/build phase the Offeror shall submit:

- manufacturers catalog data;
- 1' x1' minimum samples of each floor material, color, and pattern.
- seaming diagrams for carpeted areas other than at raised floors;
- 2' x 2' mock-ups showing all ceramic floor tile colors and patterns;
- samples of all transition pieces and special shapes; and
- a minimum of 10 percent extra stock of each color and pattern of each floor material installed in the facility.

### Ceilings

All ceilings shall be a minimum of 9' clear height. Lobbies and rooms accommodating 30 people or more shall have a minimum of 10' clear ceiling height. Vaulted ceilings in lobby areas are highly desirable and will be considered a facility enhancement. Main entry lobbies should have a minimum of 12' clear ceiling height.

### Offices

Offices, open office areas, departmental conference rooms, and similar use rooms shall have at minimum a 2' x 2' suspended, lay-in ceiling system with acoustical panels. Edge shall be square cut regular lay-in or tegular. Light reflectance shall have a minimum LR of .075.

The ceiling grid system material shall be double-web Electro-galvanized steel with a baked polyester paint finish; duty classification Intermediate.

In areas where an under floor plenum is utilized, systems other than suspended ceiling shall be proposed for review and approval.

### Other Spaces

Restrooms, utility rooms, corridors, kitchens, and similar areas shall have gypsum board or plaster ceilings. Rooms accommodating 30 people or more shall have gypsum board or full height systems panels. Showers shall have water resistant gypsum board or fiberboard or equal. The Air Force may designate additional spaces that require gypsum board because of their function. Lobbies shall have above standard ceiling design features. Lighting shall be integrally designed to enhance the lobby and ceiling design. Conference rooms and other special use spaces shall have lighting designed for maximum control and flexibility. Audio-visual systems shall be integrally accommodated within the design of the room.

Other Spaces- Restrooms, utility rooms, corridors, kitchens, and similar areas - After award and during the design/build phase the Offeror shall submit:

- manufacturer's catalog data and 1'x 1' minimum samples of ceiling tile, ceiling suspension system, and other ceiling materials;

- provide 10% extra stock of each type and color supplied; and **(Delete #14--5% extra stock)**
- provide a 10-year warranty.

### Door Hardware

All doors shall have heavy-duty, institutional-grade hardware. Mechanical and electronic hardware shall conform to force protection standards.

Door Hardware-After award and during the design/build phase the Offeror shall submit:

- Complete door hardware schedule describing products, product data, wiring diagrams for power, signal and control systems; and
- Samples for initial selection.

### Identification Devices

Identification devices for exterior and interior installations shall comply with ADAAG requirements. Exterior signage shall identify the facility at the main entrance and at all ancillary entrances. Individual die-cut letters shall match exterior graphics of other LAAFB buildings. Ground-level monument signs shall be provided to adequately identify the facility.

The Offeror shall submit:

- Schedules of all identification devices which indicate type, material and location; and
- Samples of each type.

### Millwork

Casework shall meet WIC Custom Grade standards and shall have the WIC stamp, except for those locations indicated that conform to WIC Premium Grade. Countertops shall be solid polymer material. Casework and countertops in restrooms shall be solid polymer material with integral sinks. Casework in suites, the lobby reception area, and other specific areas as designated by the Air Force shall meet WIC Premium Grade standards, and shall have the WIC stamp. Casework shall be manufactured of selected matching hardwood veneer. Casework and paneling shall be bookmatched. Countertops shall be granite or solid polymer material selected from the manufacturer's designer series.

Millwork-After award and during the design/build phase the Offeror shall submit:

- Shop drawings complying with WIC criteria and with a WIC certified compliance label;

- Samples 1'x1' minimum of each type, material, and finish; and
- Manufacturers data.

## **Exterior Materials and Finishes Submittals and Requirements**

During the formal design process, the Offeror shall submit samples of the materials to the Air Force for approval. Samples will be of sufficient size to determine the appearance of the wall and in accordance with generally accepted industry practices for office projects.

After award and during the design/build phase the Offeror shall submit:

- Provide manufacturer's catalog data of windows, finish, hardware, and window operators;
- Use a manufacturer having not less than five years experience in the manufacturing of the exterior building systems;
- Use installers who are factory (manufacturer) trained with a minimum of five years of experience;
- Warrant windows and doors (including window operators) for a minimum of 25 years; and
- Construct 6' x 8' minimum mock-up panels on-site of each major exterior building system.

## **Roofing**

### **Standing seam metal:**

- Have factory applied finish;
- Be warranted for 20-years;
- Be colored as indicated elsewhere in this solicitation document; and
- Have the underside and sides of the metal roof system concealed.

### **Bituminous roofing:**

- Concealed roof drains and overflow drains;
- Warranted for 20 years;
- Be low emissivity; and
- Single-ply membrane or foam type systems are prohibited.

Drainage and overflow systems shall not be allowed to stain the exterior of the building envelope and shall be routed to an underground drainage system. Any roof mounted equipment that is visible from the building or neighboring structures shall be screened with materials compatible with the building.

After award and during the design/build phase the Offeror shall submit:

- Manufacturer's catalog data indicating; material, fastenings, proposed method of flashing, anchoring, and other related items; and
- Testing requirements for all items of the proposed work.

## Systems Components and Equipment

Toilet partitions shall be ceiling hung. Laminated plastic or metal type partitions are prohibited. Hardware and fittings shall be institutional duty. Toilet accessories shall include recessed toilet tissue dispensers, semi-recessed paper towel dispensers and disposal, recessed seat cover dispensers, recessed sanitary napkin dispensers, counter-top-mounted soap dispensers, handicap grab bars, and mirrors. All shall be of stainless steel construction.

Exterior and interior windows shall have horizontal or vertical blinds. Materials shall be non-yellowing and able to operate manually.

All conference rooms and break-out areas shall have integrally designed white boards and pin-up tracks.

After award and during the design/build phase the Offeror shall submit:

- Manufacturer's catalog data indicating thickness of material, fastenings, proposed method of anchoring, hardware, fittings, mountings, and other related items; and
- Samples of material, finish, and color.

### Demountable Partitions

Demountable partition systems shall:

- Be of a vertical delineation revealing design between panels;
- Have a floor-to-ceiling height ranging from 84" to 120";
- Permit extension in 2-, 3-, or 4-way plan conditions at any location without removal of existing panels or floor track; and
- Provide a 3" vertical adjustment in overall height to accommodate floor irregularities, and +/- 1/2" at ceiling track.

Each panel unit shall:

- Be constructed in such a manner as to contain provisions for mounting work surfaces and storage components on either side of the partitions including side-by-side mounting;
- Have the ability to be installed on top of finished flooring, raised flooring, or carpeted flooring (the system can be installed to the underside of suspended grid ceilings without the use of destructive fasteners); and
- Provide for complete integration of conventional and modular power systems.

Frames may be either of the following: 2" standard frames, 4" non-stacking frames, or 4" stacking frames.

The system shall:

- Accommodate marker board and tackable acoustic fabric skins;
- Have an integral leveling system with adjustment points at both the ceiling and floor intersections;
- Have the ability to accommodate glass frames consistent with the modules of the frame system (all glass frames shall be of tempered glass);
- Have trim consisting of base trims, top caps and edge trims, and any other elements required for a complete closure of the system;
- Have the ability to interface with a post-and-beam system that can utilize electrical data along with modular marker board components (the post-and-beam system shall interface with the horizontal top raceway system at a height of 72"); and
- Have a minimum STC 45 rating at all offices and conference rooms.

All connection systems shall have the ability to accommodate in-line connections, off-module connections, and standard junctions. Moveable furniture components shall have the ability to work with all demountable and office partitions.

Wiring and cabling shall utilize power distribution kits with standard receptacles and adapters. The de-mountable partition system and the office partition system (see below) shall be from the same manufacturer.

After award and during the design/build phase the Offeror shall submit:

- Manufacturer's catalog data indicating thickness of material, fastenings, proposed method of anchoring, hardware, fittings, mountings, doors, frames, lights, and other related items;
- Samples of material, finish, and color; and
- Constructed mock-up of one fully enclosed room on-site. Mock-up may be incorporated into the project if accepted.

### Office Partition Systems

The office partition system shall:

- Interface with the demountable partition system;
- Interface with both an 18" raised pedestal floor system as well as a min 4" raised cable raceway floor system in both 24" and 60 centimeter applications;
- Accommodate horizontal and vertical adjustments in minimum 1" increments;
- Have overall vertical heights from 30" to 72";
- Have a nominal thickness of 4" for primary office partitions and be able to accommodate electrical and data conduit, junction boxes, and wiring for primary office partitions;
- Have a nominal thickness of 2" for secondary office partitions and be able to utilize marker board, tackable acoustic fabric and aluminum slat-wall skins;
- Have task lighting that is integral to the office partition system, interfacing with the top raceway (task lighting shall be from the same manufacturer as the partition system).

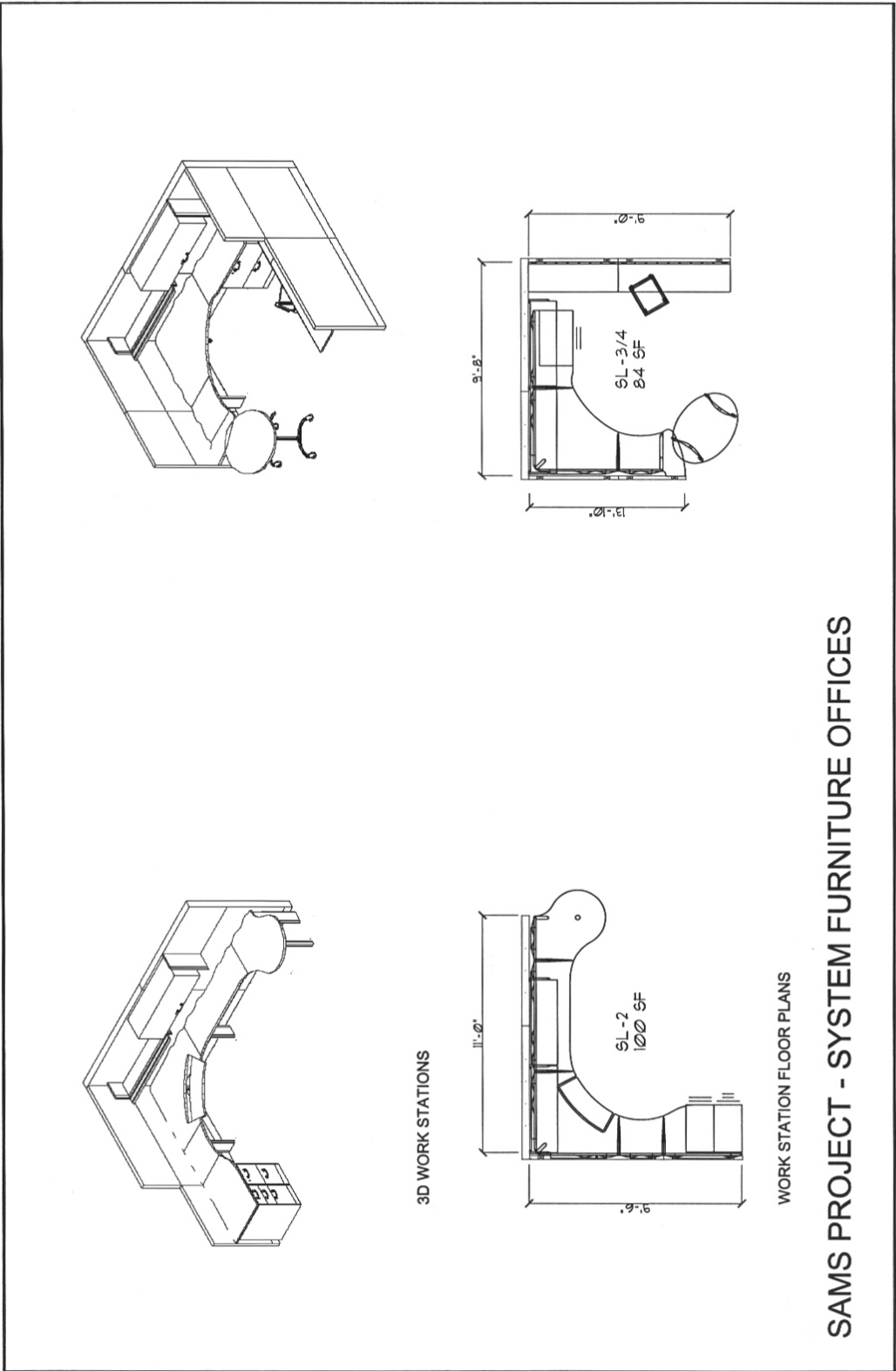
- Fabric used on systems furniture panels should be a minimum of grade 30 and be in the cost range of \$23.00 per square yard.

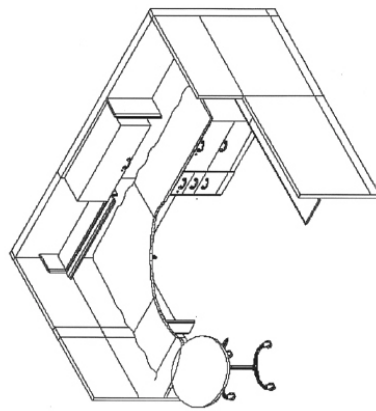
After award and during the design/build phase the Offeror shall submit:

- Manufacturer's catalog data indicating thickness of material, fastenings, proposed method of anchoring, hardware, fittings, mountings, indirect lighting, and other related items;
- Samples of material, finish, and color; and
- Constructed mock-up of one workstation on-site. Mock-up may be incorporated into the project if accepted.

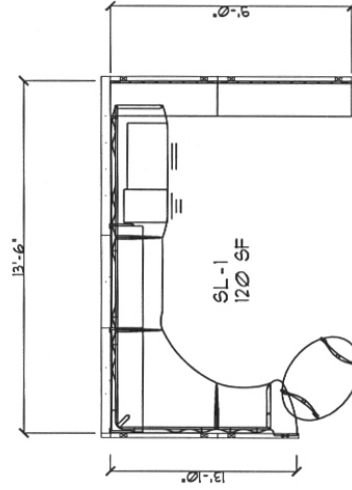
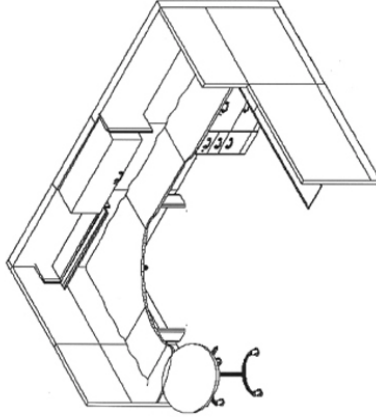
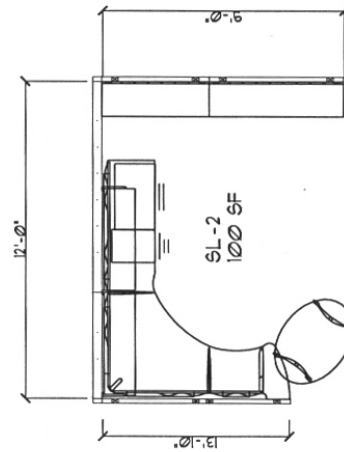
Cubicles with higher partition walls.







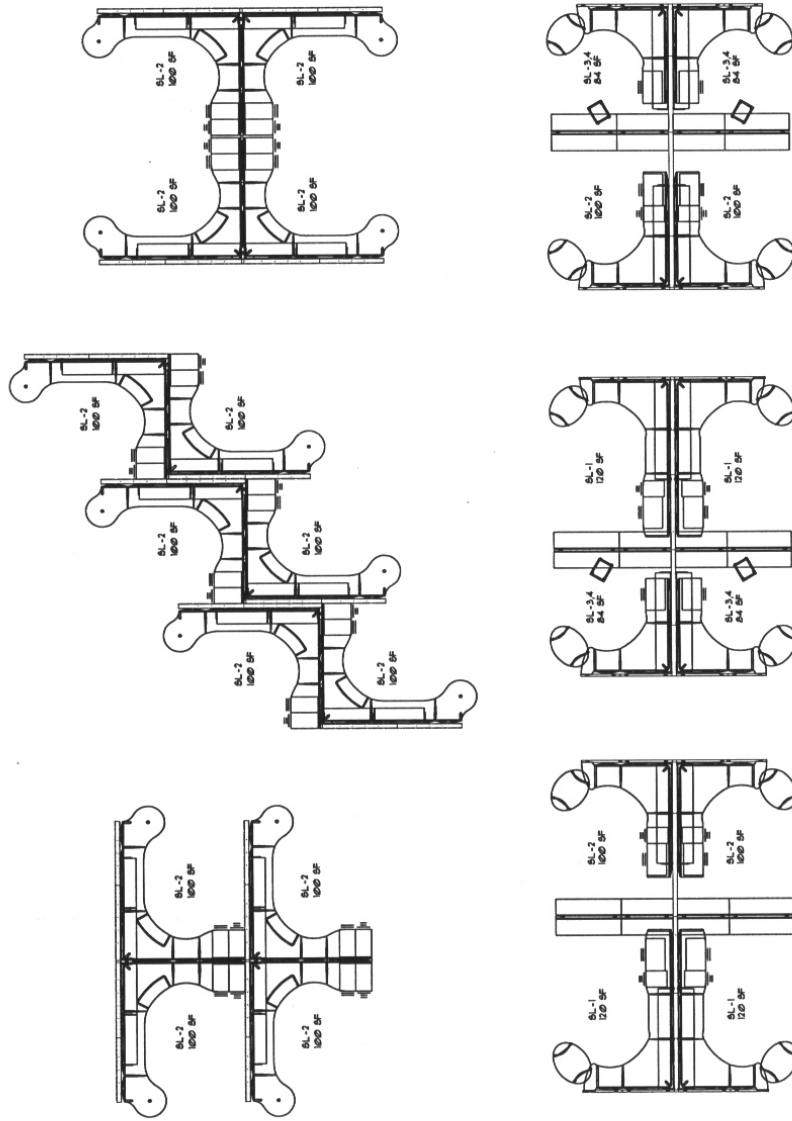
3D WORK STATIONS



WORK STATION FLOOR PLANS

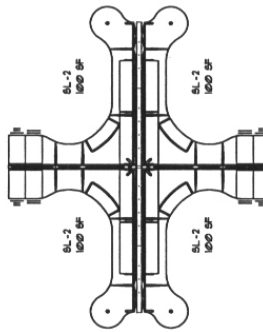
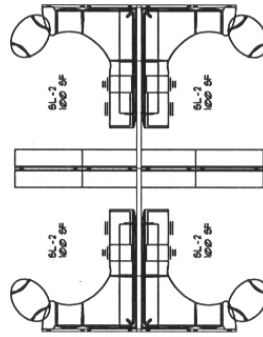
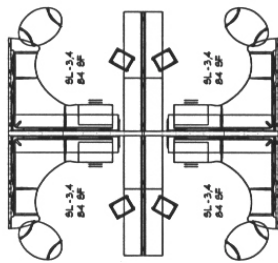
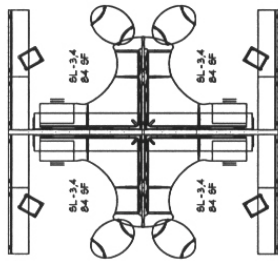
# SAMS PROJECT - SYSTEM FURNITURE OFFICES





CLUSTER PLAN OPTIONS

## SAMS PROJECT - SYSTEM FURNITURE OFFICES



CLUSTER PLAN OPTIONS

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## Elevators

Elevator systems shall:

- be at least comparable to Class “A” type office building standards for wait time, interior finishes, and door finish;
- be electric geared or gearless systems;
- have a minimum rating of 2,500 pounds;
- accommodate up to 15 passengers at a rate of 450 – 500 ft. per minute minimum;
- have stops adequate to serve all floors of the buildings with an additional stop to the roof of the structure; and
- have the ability to accommodate a remote elevator monitoring system.

One elevator shall be designed as a service elevator with increased cab size and load rating.

It is preferred not to have an elevator in the parking structure and instead have a walkway that enters one of the SAMS Facilities at mid level. However if the Offeror believe an elevator is more cost effective from a lifecycle standpoint, the parking structure elevator system shall be hydraulic with above standard security enhancing features.

## Raised Floor System

It is preferred that a raised floor system be utilized throughout all office areas as an under-floor plenum and distribution area. The raised floor system utilizing an air-plenum for HVAC should be considered the standard for facility design.

The raised floor system shall:

- accommodate both steel and aluminum panel systems in bolted stringer, corner-lock, and stringerless applications, in both 24” square and 60 centimeter applications;
- be rated for class "A" flame spread and smoke development ratings;
- allow for a minimum of 3000 p.s.f. concentrated load and 3000 p.s.f. rolling loads;
- accommodate solid, grate, and perforated panels;
- have solid panels injected with acoustic fill material;
- accommodate primary and secondary distribution boxes as well as under-floor P.V.D. (phone, voice and data) service centers; and
- accommodate an under-floor HVAC plenum system with both manual floor diffusers and electronic VAV terminals for individual comfort control at each workstation (if an overhead HVAC distribution system is utilized, the raised floor may be reduced in height as appropriate).

### **Food Service Equipment**

Existing food service equipment shall be relocated from the existing Consolidated Club to a new kitchen within the building.

### **Flagpoles**

Three ground set tapered stainless steel seamless 40 'high flagpoles, with a tensile strength of 30,000 psi minimum required.

### **Pre-Engineered Building System**

A Pre-Engineered metal building will be used as a warehouse. Clear spans shall be maximized to provide interior flexibility. Colors shall coordinate with the office building. Natural light shall be introduced. Floors shall be sealed concrete.

The Offeror shall submit:

- manufacturer's catalog data indicating thickness of material, fastenings, hardware, doors, frames, windows and other related items; and
- 2' x2' minimum samples of material, finish, and color.

### **Parking Structure**

The parking structure shall accommodate 1,000 cars, and shall be designed for maximum entrance and egress at peak hours. Exterior materials and colors shall be similar to coordinate with the office buildings.

The parking structure design shall be carefully developed so as to be an integral part of the base and the SAMS complex. Materials, scale, colors and proportioning shall all coordinate closely with the SAMS office buildings.

The parking structure design shall facilitate passive security through casual visual monitoring.

The Offeror shall submit:

- samples of material, finish, and color for structure and related components; and
- construct 6' x 8' minimum mock-up of exterior.

### **Landscaping**

Refer to the LA AFB General plan and the AFCEE Design Guide – Landscape Design (<http://www.afcee.brooks.af.mil/dc/products/dcproducts.asp#dcd>) for landscaping requirements.

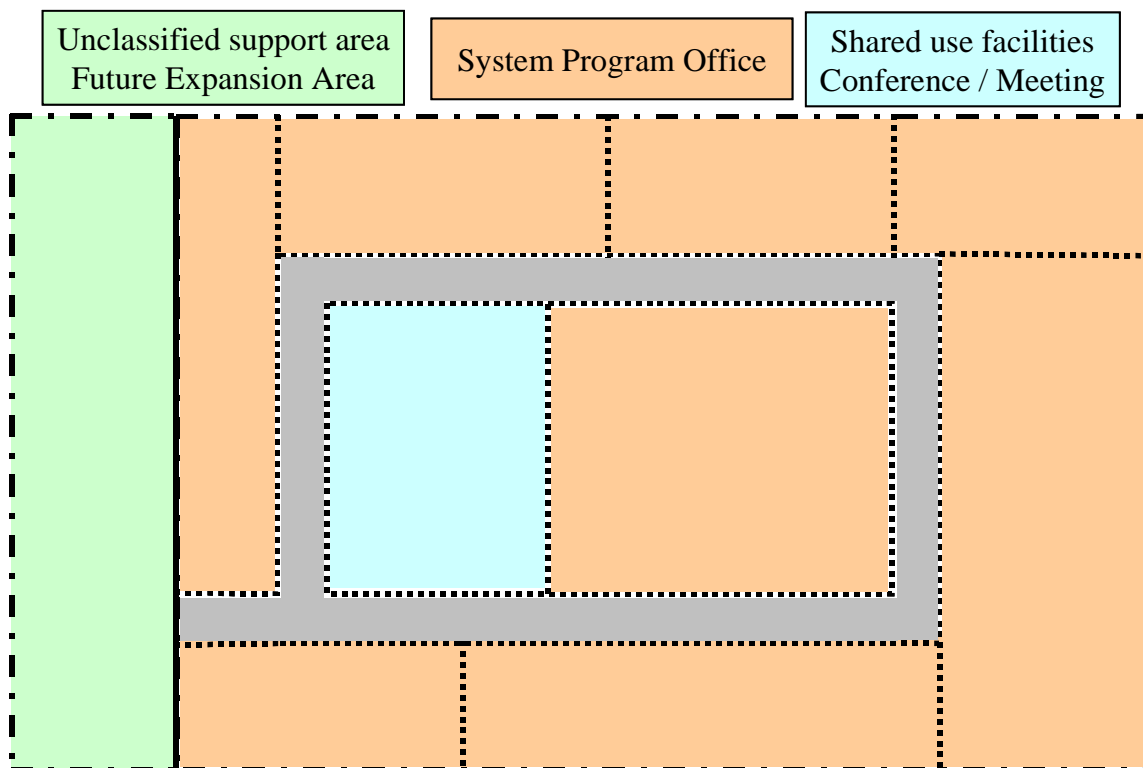
### **Seismic Requirements:**

Replacement facilities must facility must comply with the seismic and safety design standards for Los Angeles County, California, in effect at the time the Air Force takes possession of the facility. In addition to Los Angeles County requirements, facilities must also comply with requirements contained in Air Force Engineering Technical Letter 00-5, Seismic Design for Buildings and Other Structures. ETL-5 may be found at the following Internet address: <http://www.afcesa.af.mil/Publications/ETLs/ETL00-5Final.pdf>

### **Facility Requirements:**

#### **Sensitive Compartmented Information Facility**

There is a requirement for the Offeror to provide Sensitive Compartmented Information Facilities (SCIF). This concept design will be located in the basement of a facility. The area shall have one entry point, connected by a short corridor to an interior circulation loop. On the exterior of the loop are located several System Program Offices (SPOs). On the interior of the loop are located more SPOs and a Shared Use Facilities Conference/Meeting area. The interior and exterior walls shall meet DCID 1/21 construction requirements. The number of interior walls will be defined during Phase III of the RFP.



## **Communication Requirements for the SAMS project**

Table 1, Communication Facility Requirements

<b>Facility Name</b>	<b>Area SF</b>	<b>Quan. Req.</b>	<b>Power Req.</b>	<b>Backup power</b>	<b>Fire protect</b>	<b>Humidity Temp req.</b>
Dial Central Office (DCO)	700	1	120/220V 300KVA	Generator	Standard	50%+/- 20% 70F +/- 5F
Battery room for the DCO	150	1	120/220V 100 KVA	Generator	Standard	50%+/- 20% 70F +/- 5F
Main Distribution Frame room	500	1	120/220V 100 KVA	Generator	Standard	50%+/- 20% 70F +/- 5F
Switchboard Operators rm.	300 Raised Floor	1	120/220V 50 KVA	Generator	Standard	50%+/- 20% 70F +/- 5F
Main Computer /NCC room	10,000 Raised Floor	1	120/220V 100 KVA	Generator and UPS	Standard	50%+/- 20% 70F +/- 5F
Satellite Floor Computer rm.	250 Raised Floor	1 per floor	120/220V 50 KVA	UPS	Standard	50%+/- 20% 70F +/- 5F
Computer Storage room	SF budgeted in overall office space requirement	Min. 1 per floor	120/220V <u>50 KVA</u>	None	Standard	50%+/- 20% <u>70F +/- 10F</u>
<u>Comm closet</u>	100	1 per 22,500SF	120V 30 KVA		Standard	50%+/- 25% 70F +/- 5F
Classified Comm. Area	<u>Raised Floor</u> 1,500	1	120/220V <u>100KVA</u>	Generator and UPS	Standard	50%+/- 20% 70F +/- 5F
Cable vault	150 Underground	1	120V 20KVA	None	Standard	50%+/- 30% 70F +/- 20F

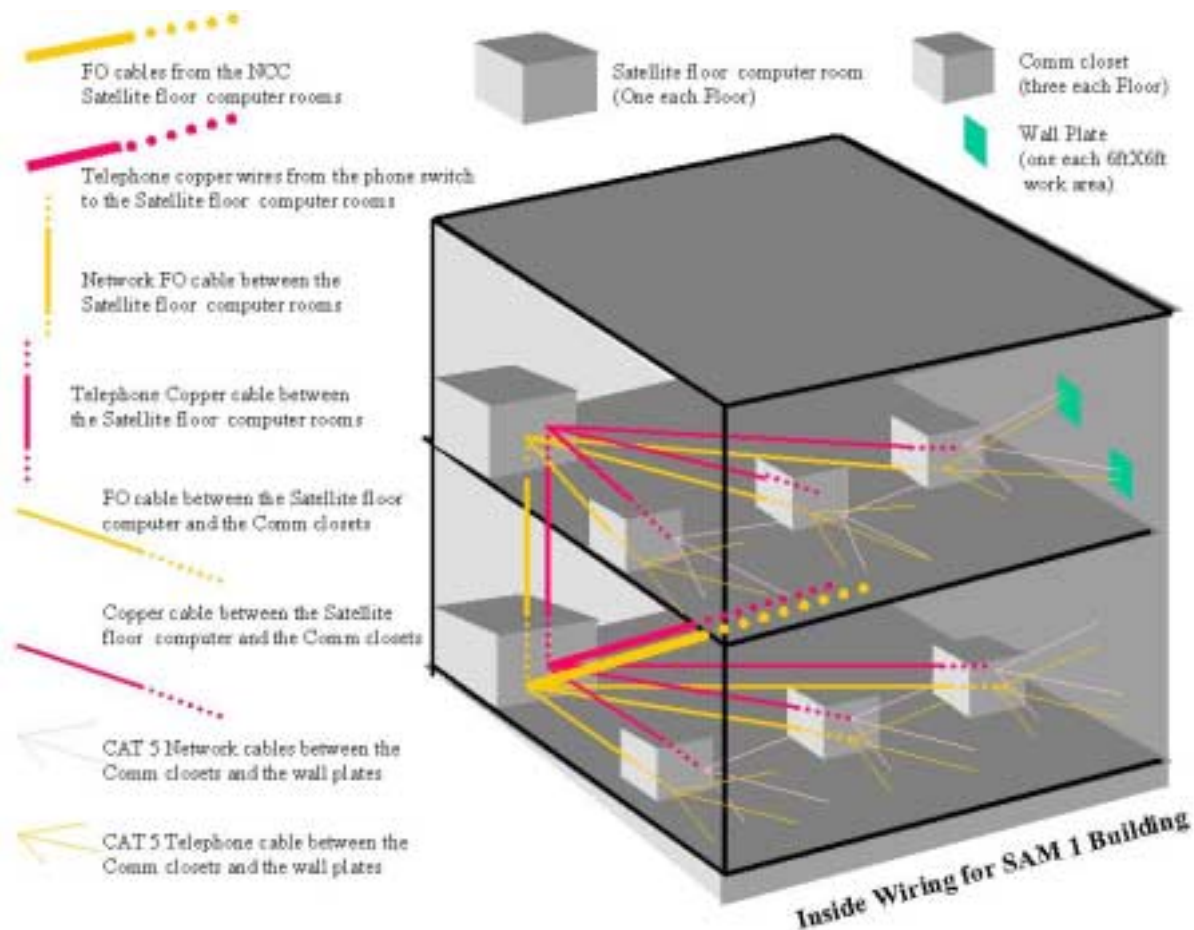
### **C. Inside wiring requirements:**

1. Telephone cables: Install Siamese, Category 5E (or most current standard at time of contract award) unshielded twisted pair (CAT 5, UTP) cables for telephone connections within the building. This cable will be terminated in the quad floor plate with RJ 11 female connectors.
2. Network cables: Install Fiber Optic cables between the NCC and the Satellite Floor Computer room and also between the Satellite Floor Computer room and the Comm. closets. The connectivity between the Comm closet and the floor Jack will be CAT 5E Siamese cables (or most current standard at time of contract award) and fiber optic cable. Provide a minimum horizontal media of 4 fiber strands, two to each fiber outlet. In SCIF areas provide a minimum 12 fiber strands, two to each outlet. The CAT 5 network cables will be terminated with

RJ 45 female connectors sharing the same floor plate with the telephone cable connector. One quad floor plate will be required in each 6X6-ft office area, and eleven quad floor plates spaced evenly around the room will be required for each 400 square foot Computer Storage room (home run to the Comm closet for all office and Computer Storage room areas). The standard quad floor plate for office areas will contain two RJ 45 and two RJ 11 outlets. The CAT 5 cable will be replaced by the most up-to-date inside wiring standard at the time of installation as called out in ANSI/TIA/EIA568.

**Note: fiber optic cable to NCC, satellite floor computer rooms, to the communications closets, SCIF areas, and classified networks such as SIPRNET will not to be included in any deletive or value engineering proposals. These areas must use fiber optic cable.**

3. SECRET Internet Protocol Routing NETwork (SIPRNET) requirements: Install approximately 50 drops of Fiber Optic cable inside metal conduits between the Comm. closets and the classified comm. areas (There will be approximately 10,000 ft of Fiber Optic inside metal conduits). Drops will require a Protective Distribution System (PDS) to each drop, per Air Force Systems Security Instruction 9AFSSI) 3030 in uncontrolled areas.



The Air Force will consider proposals that streamline and improve the inside wiring architecture, such as omitting the Category 5E cable and going to 100 percent fiber optic

cable. However, Air Force telecommunications, LAN network and computers are not fiber optic compatible. Therefore, a 100 percent fiber optic proposal must also include the costs to make existing equipment fiber optic compatible.

#### **Other Communications Requirements:**

1. Install the most current state-of-the-art cipher locks for all computer rooms and Dial Central Office (DCO). Also, it will be necessary to have direct motion detectors that are capable of responding back to the security police if an unauthorized intrusion occurs in in classified computer rooms and DCO. These areas must be built as closed areas and meet DoD secure area requirements. Ref. a. (AFI) Air Force Instruction 31-102, Physical Security, May 91. b. (DoD) Department of Defense 5200. 1-R Appendix G, Physical Security Standards, Jan 97.
2. All classified comm. areas must be closed areas and meet DoD secure area requirements IAW Emission Security Regulations. Ref. a. (AFSSM) Air Force System Security Manual 7011, Emission Security Countermeasure Reviews (U), 1 May 98. b. (S) (AFSSI) Air Force System Security Instruction 7010 (U), FOUO, Network Security Policy, 27 Feb 98. c. Air Force Instruction 33-203, EMISSION Security, 1 May 98. d. Air Force Systems Security Instruction 3030, Protected Distribution Systems, 1 May 97.
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4. Provide computer grade power for all outlets located in the office areas. Provide separate power outlets for non-computer equipment in all office areas. Mark computer and non-computer outlets appropriately.
5. Provide separate power circuits and 24/7 environmental control to all communication facilities designated as requiring backup generator power (i.e. generators must be sized to power communications equipment and HVAC). Also install environmental sensors for moisture level and temperature fluctuation in every facility except for the cable vault listed in Section A, Table 1 above.
6. The maximum distance from the comm. closet to the quad floor plate outlets shall not be longer than 200ft
7. Install new cable ducts with inner duct from the Dial central office facility to the base perimeter to accommodate commercial service and connectivity to Aerospace (See deletive items Appendix C).
8. Install a PA system for the new facilities. This system must have the capability of interfacing to the base network and the existing PA system.
9. Install the coaxial cable for the close circuit TV and monitor cameras as designed
10. Install appropriate number of fire alarm circuits.
11. Every elevator must be equipped with the standard alarm and communications equipment.



12. All above facilities in Section A, Table 1 except for the cable vault should be set to detect motion and alert Security Forces.
13. The Main Computer/NCC room, all Satellite Floor Computer rooms, all Computer Storage rooms, and all Classified Communication Areas over 1,000 S.F. will require double doors with the most current state-of-the-art cipher locks to allow for equipment to move in and out easily.
14. Install a repeater system for the LMR to eliminate the "dead spots" inside the building
15. Install both CAT V cables and FO cables to all video conference facilities
16. The number of drops required for the NCC will need to be determined in the design phase.
17. Install FO cables to all drops inside the SCIF and classified comm areas. The FO cables will be terminated in the wall/floor jacks.
18. Separate power source or filtered power will be required for the SIPRNET and COMSEC areas. Ref. a. (AFSSM) Air Force System Security Manual 7011, Emission Security Countermeasure Reviews (U), 1 May 98. b. (S) (AFSSI) Air Force System Security Instruction 7010 (U), FOUO, Network Security Policy, 27 Feb 98. c. Air Force Instruction 33-203, EMISSION Security, 1 May 98. d. Air Force Systems Security Instruction 3030, Protected Distribution Systems, 1 May 97. e. (AFI) Air Force Instruction 33-202, Computer Security, 15 Feb 01.
19. 61CS must be present in all design phases of the SAMS project.

## **Terms:**

**Dial Central Office:** This area will be used to house the main telephone switch to provide voice service to all of LA AFB.

**Battery room:** This area will be used to house the switch battery and rectifier. An emergency eye wash station must be provided in the battery room.

**Main Distribution frame room:** This area will be used to house all patch panels for cable cross connections, long haul circuits, NIPRNET and vendor equipment. The main distribution frame room is the demarcation point for all commercial circuits. Contractors will provide cables to the base demarcation point.

**Switchboard Operation room:** This area will be used for the switchboard operation personnel and a break room for the operators.

**Main computer/NCC room:** This area will be used to house the NCC equipment, server farm, tape library, TIF (Testing & Integration Facility) and the computer assembly area.

**Satellite Floor Computer room:** This area will be used to locate all cables entering the floor and house the network hub equipment for the floor. One satellite room will be required for each floor.

**Computer Storage room:** This room will be used for storage of a SPO's laptop and computer equipment.

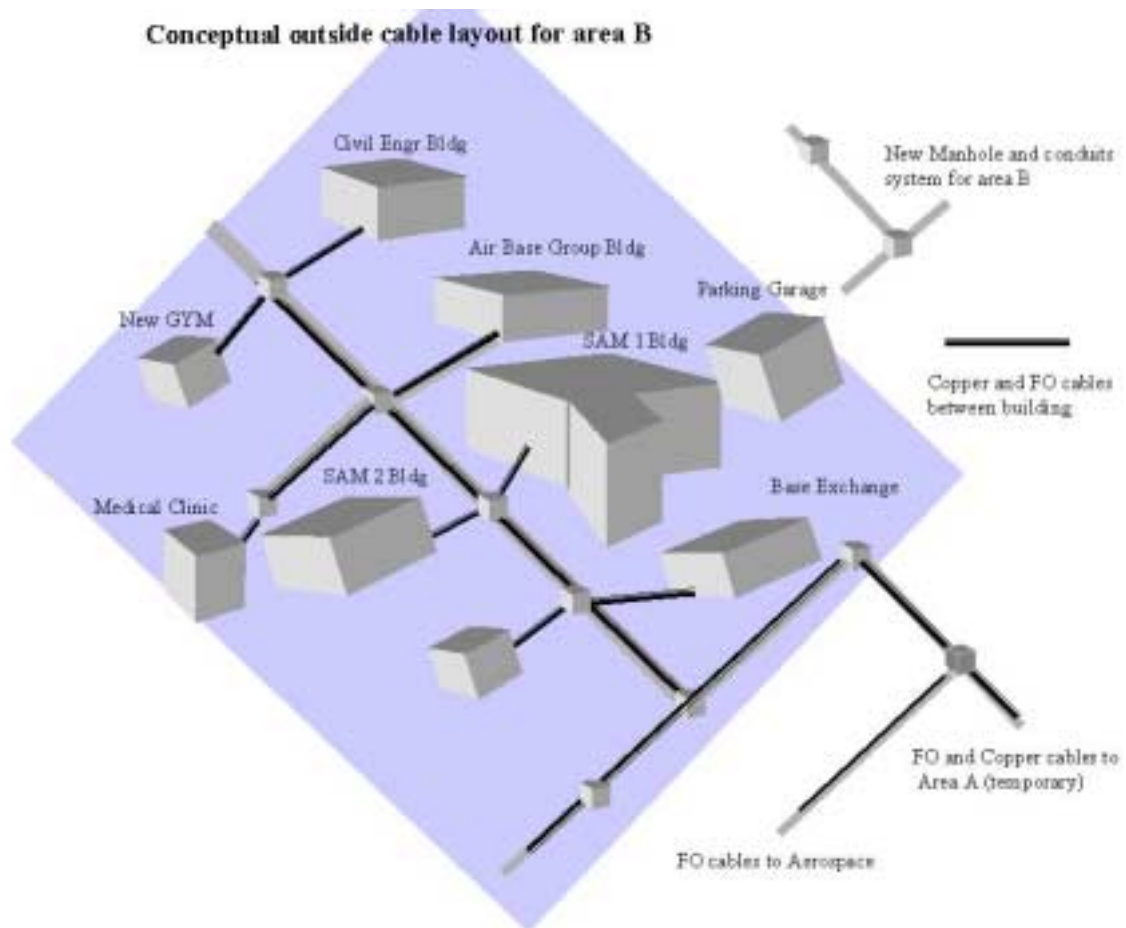
**Comm. closet:** This area will be used to house all the hub equipment and the patch panel for both phone and network cables. One Comm closet will be required for every 22,500 square feet of office space.

**Classified Comm area:** This area will be used to house all classified computer equipment up to the secret level including the encryption equipment, classified servers for the SIPRNET, and classified LANs. Also this area must have its own air and UPS backup systems that are totally separate from the building's air and UPS backup systems. All kinds of security and detection systems are necessary in this area, and these systems have to be linked back to security personnel for monitoring purposes.

**Cable vault:** This area will be used to locate the cable splices between outside copper cable and inside copper wires before they enter the frame rooms. 6 each, 5 inches schedule 40, PVC conduits are required to allow outside cable to enter the cable vault. The cable vault shall be located directly under the main distribution frame room

#### **B. Telephone switch and outside cable requirements:**

1. The Offeror will be responsible for providing and installing a new telephone switch equipped with a minimum of 6,000 lines and having the capability to expand to 10,000 lines. The switch will be equipped to provide voice mail and ISDN service, and include the trunk interface to local and long distance carriers. The new switch will have the capability to connect to the existing remote switch located at Ft. MacArthur.
2. The Offeror will provide an outside cable plant inside a manhole and conduit system to provide service to all of area B and re-home the existing outside cable plant to provide temporary phone and network service to area A. The outside cable plant will require both copper and Fiber Optic cables for telephone and network connectivity. The connectivity to area A will be disconnected once all personnel are moved to area B. Fiber optic and copper cable will also be required between the new SAMS facility and the Aerospace area for network connectivity. The manhole and conduit system will be installed in accordance with T.O. 31W3-10-12.



## Electrical Requirements

### Applicable Codes and Standards

#### Codes

Material and equipment shall be installed in accordance with the current standards and recommendations of the National Electrical Code, the National Electrical Safety Code and with local codes that apply.

#### Tests by Independent Regulatory Agencies

Electrical material and equipment shall be new and shall bear the label of the Underwriters' laboratories, Inc., or other nationally-recognized independent testing laboratory wherever standards have been established and label service regularly applies.

#### Utilities

Work in connection with the electric and telephone services shall be done in strict conformance with the requirements of the utility companies.

## Reference Standards

Electrical material and equipment shall conform to the latest approved standards of the National Electrical Manufacturers Association (NEMA), American National Standards Institute (ANSI), Institute of Electrical and Electronic Engineers (IEEE), and National Fire Protection Association (NFPA).

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Work in connection with the electric and telephone services shall be done in strict conformance with the requirements of the utility companies.

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Electrical material and equipment shall conform to the latest approved standards of the National Electrical Manufacturers Association (NEMA), American National Standards Institute (ANSI), Institute of Electrical and Electronic Engineers (IEEE), and National Fire Protection Association (NFPA).

## Energy Management

Facility design shall incorporate energy efficient criteria consistent with the ENERGY STAR program and other Federal Energy Management Program (FEMP) initiatives.

The facility design shall encourage sustainable design and shall provide for verification of building performance. Off-grid generation systems such as photovoltaics, fuel cells and other alternatives shall be considered and employed where such systems are lifecycle cost-effective.

Energy for lighting and other uses shall comply with ASHRAE/IES 90.1-1999 or other applicable state or federal standards.

Microprocessor-based metering units shall be provided on utility services and feeders within the facilities to monitor the quantity and quality of energy used.

## Lighting Systems

Exterior lighting shall minimize sky glow and light trespass on adjacent properties, and shall be photocell controlled and integrated with the facility's overall security requirements.

Interior lighting controls shall utilize occupancy/motion sensors where appropriate to turn off lighting in unoccupied spaces. In the perimeter areas of the buildings, photo-sensor controls shall be utilized where appropriate to reduce the electric lighting in pro-

portion to the available daylight. Office lighting systems shall be designed to control brightness and glare, particularly with respect to video display screens.

## **HVAC Requirements**

Design the system for efficiency, reliability and ease of maintenance. For example, do not put all the eggs in one basket by constructing a single chiller sized to service the entire complex. Instead, there should be a series of smaller chillers that can be started individually as demand for cooling increases. In addition, this type of design strategy will reduce operating risk and allow for a more reasonable maintenance schedule.

Individual roof mounted package units are not an acceptable design solution. However, in special cases such as SCIF space and telephone equipment rooms, standalone HVAC systems may be justified.

Place mechanical rooms on the ground floor level whenever possible. Size mechanical rooms so equipment can be maintained, repaired, or replaced without having to remove walls, doors, or other equipment.

The building, at a minimum, should meet all applicable Federal, State and Local codes and standards. Additional standards include: ASHRAE, SMACNA, and AMCA.

The HVAC design calculations shall be performed using software capable of performing transfer functions based on hourly heating and cooling analyses. The software shall utilize local meteorological weather and solar radiation data. Utilize the latest version of one of the following programs:

- Carrier's HAP (Hourly Analysis Program);
- Trane's Trace 6000; or
- DOE 2.0 based software.

The building envelope, mechanical, and electrical systems shall be designed cooperatively in an attempt to meet energy budget guidelines as defined in the Federal military "A/E Guide" s. Similarly, the design shall follow the requirements of Federal energy code ASHRAE Standard 90.1-1999, Energy Standard for Buildings Except Low-Rise Residential Buildings. An attempt to outperform the energy standards as listed below should be discussed and agreed upon in the preliminary stages of the project. Taking from the LEED program, a goal of 20, 30, and up to 60 percent reduction in building energy usage may be achievable and should be discussed prior to any load calculations.

Outside air requirements should meet the criteria in ASHRAE Standard 62, Ventilation for Acceptable Indoor Air Quality.

The assistance of an independent third party Commissioning Authority should be considered. These services should start at the inception of the project and extend through post construction system testing and documentation. The goals of the commissioning process should include:

- Improve energy performance;
- Improve operating strategies;
- Provide building system documentation;
- Improve operator training; and
- Ensure proper application of new technologies.

These goals should ensure a smoother building turnover from contractor to owner, improve building performance, reduce contractor call backs, and improve worker safety and productivity.

If a refrigerant based cooling system is utilized, it should comply with the Federal guidelines for ozone protection standards. Ceiling return plenums should not be used as they waste energy and pick up particulates. Depending on the seating arrangements and floor plan configuration, thought should be given to individual climate control, or at least to a high level of zone control.

## **Force Protection**

The USAF Force Protection Design Guide will be used in the design of all elements of the site and buildings. The Force protection guide may be found on the Air Force Center for Environmental Excellence (AFCEE) web-site at the following address: <http://www.afcee.brooks.af.mil/dc/products/dcproducts.asp#dcd>. Force protection measures should be based upon the assessment of the threat. The Force Protection Guide is a balance competing considerations such as building codes and regulations, aesthetic concerns and overall project cost. The ultimate responsibility for force protection rests with the Installation Commander.

## **Environmentally Preferable Building Materials and Practices**

LAAFB is committed to sustainable construction and maximizing the efficiency of operating costs and resources over time. Adhere to Executive Orders 13101, Greening of Government through Waste Prevention, Recycling, and Federal Acquisition, September 14, 1998; and 13123, Greening of the Government through Effective Energy management, June 3, 1999.

## **Hazardous Materials and Waste Management Plans**

After award and during the design/build phase the Offeror shall submit:

- Plan for hazardous material and waste management;
- Plan for solid waste management and recycling of construction demolition debris; and

- Plan for storm water pollution prevention management.

The following plans exist to support management of hazardous materials:

- *Hazardous Waste Management Plan.* The Hazardous Waste Management Plan is required under the Resource, Conservation and Recovery Act (RCRA), California's Hazardous Waste Control Law and AFI 32-7042. Hazardous waste is regulated by the Environmental Protection Agency (EPA), Title 40 CFR, the State of California Environmental Protection Agency (CAL-EPA)-DTSC, Title 22 CCR and the local CUPA—El Segundo Fire Department. These regulations require tracking and record keeping from “cradle to grave” of hazardous waste, as well as specific procedures for labeling, storage, transportation, and disposal. The purpose of this plan is to establish policies, procedures, and personnel responsibilities to ensure LAAFB's compliance with these regulations.
- *Emergency Response Plan (ERP):* The ERP is required by Title 40, Code of Federal Regulations and Title 22, California Code of Regulations, for generators of hazardous waste. The ERP is designed to minimize hazards to human health and the environment resulting from fires, explosions, unplanned sudden or non-sudden releases of hazardous materials/waste, or their constituents to land, air or sea. This applies to all base activities.
- *Spill Prevention, Control and Countermeasures Plan:* 40 CFR, Part 112 outlines requirements for both prevention of and response to oil spills. The prevention aspect of the rule requires preparation and implementation of the Spill Prevention, Control, and Countermeasure (SPCC) Plan. The regulation established spill prevention procedures, methods, and equipment requirements for non-transportation-related onshore and offshore facilities with aboveground oil storage (ASTs) capacity greater than 1,320 gallons (or greater than 660 gallons in a single container or buried underground oil storage capacity greater than 42,000 gallons). Regulated facilities are also limited to those that, because of their location, could reasonably be expected to discharge oil in harmful quantities into the navigable waters of the United States or adjoining shorelines.

## **Demolition**

After award and during the design/build phase the Offeror shall:

- Receive authorization from and coordinate with the Contracting Officer prior to beginning demolition;
- Conduct demolition and removal processes in accordance with Base requirements for hours of operation, ingress and egress, disposal and clean up processes, and all applicable Local, State and Federal laws and regulations; and
- Prevent damage to existing utilities not scheduled for demolition. If damages occur, make repairs to the satisfaction of the Contracting Officer at no cost to the Government.

## **Site work**

The Offeror shall:

- Finish site walls, equipment yard enclosures, trash enclosures, and similar utility structures to be compatible with the exterior finish of the building;
- Where fencing is provided, match the iron fencing that is the LAAFB standard design or provide a comparable design;
- Provide walls high enough to conceal all equipment from view at
- Equipment, trash, and similar yard areas; and
- Screen those utility areas that can be seen from upper floors with horizontal architectural grillwork or a similar screening device that is compatible with the design of the building.

Site paving materials at the entrances to the building shall be of a quality and design that emphasizes the transition from the exterior to the lobby.

The Offeror shall mitigate methane gas as required by Local, State and Federal requirements.

The Offeror shall provide complete vehicular, service, emergency, and pedestrian access throughout the project area.

## **Design Process and Submittals**

Upon selection of a Offeror and the signing of necessary business documents a formal design process will be undertaken. This section defines the Air Force's requirements for the development of construction drawing and specifications.

The Air Force anticipates that a proposal submitted by a down-selected Offeror that is in compliance with the requirements of this RFP will represent a 10 percent interim design.

Throughout the design process the Offeror must integrate communications into the facility. An information technology consultant with expertise in this area must be used during the design of the facility.

The Air Force requires a charrette with the Offeror's architect at the 20 to 25 percent design stage. The goal of the charrette is to open a dialog between the Air Force and the architect, provide meaningful input to the design, and minimize changes at the 35% design stage. The architect will make a presentation and solicit comments from the Air Force in relation to facility siting, traffic flow, primary exterior architectural elements, and construction phasing.

After award of the contract, the design will proceed with the Successful Offeror submitting a 35% interim design package for review and approval by the Air Force. The schedule for submitting the 35% design will be established in the design contract. The



Air Force will review the 35% design package against the requirements established in the contract, which will include these specifications, along with the elements contained in the LAAFB design guide and the Concept Design materials.

For the purposes of this RFP, the Air Force considers the following to be the elements of a 35% design (final definition of 35% design will be contained in the design contract):

### **General**

- Prepare a construction cost estimate
- Establish the legend sheet (symbols)
- Establish consistent terminology
- Identify major interfaces (be sure you understand existing conditions)
- Define and verify current conditions for existing facilities
- Include the table of contents for specifications
- Develop the list of particular specifications, highlighting nonstandard specifications and confirming that requirements identified in Appendix A are understood and can be met
- Develop the drawing list
- Develop the hydraulic profile
- Include the process flow diagram
- Include the preliminary list of section drawings
- Identify changes from Design Report (letter or report format)
- Identify proprietary technology or equipment
- Identify clients' equipment preferences
- Include description of operation
- Identify hazardous areas and their classification
- Identify toxic areas and the regulatory agencies involved
- Identify ventilation issues
- Identify noise requirements
- Identify the LAAFB permit and code requirements
- Identify concept and strategy for telecommunications and LAN
- Coordinate line work (interceptors, force mains, etc.) that is constructed outside the building site with private utilities (telephone, electric, gas, cable TV)

### **Civil Sanitary**

- Soil report
- High point and low point of floor slab
- Discussion of pipe sizes for pipe hung from the underside of the structural frame or concrete supports
- Location, weight, rotational speed(s), and equipment manufacturers' literature for all large equipment
- Location and size of opening in concrete walls

- Select major equipment
- Prepare conceptual layouts for all buildings showing locations for major equipment
- Develop the preliminary site plan with roadway (access) patterns, major subsurface piping, and utilities established
- Develop operational and control descriptions of major systems
- Develop the motor list
- Identify scope of lab functions (if any)
- Locate chemical storage, usage, and impacts
- Obtain soils report
- Define property limitations/site assessment/hazardous waste
- Finalize Engineering Technical Design Report
- Draft specifications for major equipment
- Type of foundations
- Identification of Americans with Disabilities Act (ADA) or other architectural restrictions
- Type of framing (steel vs. concrete)
- Agreement on method of equipment removal (e.g., use of cranes vs. individual lifting hooks)
- Preliminary identification of hazardous (explosive or corrosive) areas

### **Structural**

- Locate and show all expansion joints on plans
- Develop a legend sheet
- Identify foundation requirements
- Identify structural systems to be used
- Identify major interfaces with existing facilities
- Show column coordinate system, letters, and numbers on plans

### **Architectural**

- Final overall building size
- Development of a preliminary floor plan and systems furniture layout
- Final column spacing
- Sizing for all major openings such as stairs, elevators, and roof skylights
- Typical exterior of all sections
- Interior partition materials
- Anticipated floor depressions
- Location and size of the knock-out panels
- The roof slopes for pitched roofs
- Final heights of all floors of building
- Develop the preliminary legend sheet
- Develop preliminary building code and ADA study
- Develop the preliminary layout of new and modified buildings
- Develop preliminary elevations

- Develop preliminary building sections
- Identify construction systems
- Establish material selections
- Coordinate structural system
- Acquire Art Commission /Architectural Review Board approval
- Outline specifications
- Identify type of fire alarm system required and compatibility with existing system

### **HVAC**

- HVAC drawings or specifications are not required at the 35% stage
- Define equipment and system (heating and cooling) philosophy (type - gas, oil, electric)
- Identify major pieces of equipment locations and size
- Prepare preliminary calculations
- Identify roof type and its use
- Locate mechanical and HVAC room
- Provide the preliminary motor list

### **Plumbing**

- Discuss with Civil Sanitary designer any special requirements
- Discuss with Civil Sanitary designer Structural sump pit locations and sizes

### **Electrical**

- Identify distribution system and expected demands
- Establish preliminary siting of major equipment and major duct banks
- Establish standby-power requirements
- Identify existing system demands
- Identify extent of lightning protection required
- Coordinate preliminary hazardous area designations (explosive/ corrosive)

### **Instrumentation and Controls**

- Develop the specification section list
- Establish control philosophy with Civil Sanitary and Electrical designers
- Determine system block diagram/function location
- Identify the interface with existing equipment/systems
- Determine communication and life safety systems
- Develop all P&ID's for major systems and equipment showing critical field instruments and identifying panels

After approval of the 35% design by the Air Force, the Successful Offeror shall proceed with the design through the final design. After approval of the 35% design

submission the Air Force will require monthly over the shoulder design reviews through the final design. In addition, using the charette format, the Air Force will require the review and approval of the floor plans and systems furniture layouts at approximately the 65% design stage.

The Successful Offeror will submit completed specifications and drawings as the final deliverable of the design contract. The specifications and drawings will be reviewed by the Air Force to ensure that they are complementary. In serving this function, they should meet the requirements outlined in Appendix A. As the graphic means of describing the construction project, the drawings should show the shapes, dimensions, locations, and the relationships between components and materials. The order of the drawings should facilitate the work of the contractor and follow the natural order of construction. The design contract will specify in more detail the requirements for the final specifications and drawings.

### **Construction Submittals**

The Successful Offeror shall during construction:

- Provide and distribute submittal data during the construction phase in an orderly sequence so as to prevent delays in the work;
- Construct mock-up as required during the construction phase allowing adequate time for on-site review;
- Establish, maintain, and distribute copies of the submittals register to the Air Force; and
- Maintain a submittal approval file at the job site for review by project personnel.

### **Operations and Maintenance Manuals & As-built Drawings**

The Successful Offeror shall submit operations and maintenance manuals for all equipment and materials included in the project where such data are available from the manufacturer. The Successful Offeror shall provide training to designated LAAFB personnel from manufacturer trained technicians on the operation and maintenance of all building systems for which maintenance is required. In addition, the Successful Offeror will provide the Air Force with a copy of as-built drawings of the completed facility. Drawings will be in AutoCAD format.